

This PDB release includes 21 new atomic coordinate entries (see Table 5), bringing the number of coordinate entries to 554. The total size of DATAPRTP is now 115 megabytes. Program NUPARM, a package for determining nucleic acid structural parameters by M. Bansal and D. Bhattacharyya, Bangalore, is newly available on PDBPGMTP.

We are pleased to announce that John Skora joined the PDB staff in July. In his capacity as Computer Analyst, John will be developing software to improve our data input and checking procedures. During this summer, we are also fortunate to have the assistance of two undergraduate students, Joe Christian and Mike Libeson.

Please use the order form on the last two pages of this Newsletter for all Brookhaven orders. Note that the prices for DATAPRTP in certain magnetic tape formats have increased. These price increases reflect the growth in the size of the database, which in certain cases has made it necessary to use additional tape cartridges or reels.

For ready reference, a complete list of PDB Brookhaven staff with telephone numbers and BITNET electronic mail addresses is given at the bottom of this page. It is possible to place a standing order for each quarterly DATAPRTP release; anyone interested in placing such a standing order should contact Frances Bernstein.

Ten affiliated centers now offer DATAPRTP for distribution. These centers, listed immediately below, are members of the Protein Data Bank Service Association (PDBSA). Centers designated with an asterisk distribute DATAPRTP on magnetic media; those without an asterisk are on-line DATAPRTP distributors.

**CAN/SND, Canadian Scientific Numeric Data Base Service , Ottawa**

contact Roger Gough telephone 613-993-3294 e-mail CANSND@NRCVM01

**CAOS/CAMM, Dutch National Facility for Computer-Assisted Chemistry, Nijmegen**

contact Jan Noordik telephone 0031-80-613386 e-mail NOORDIK@CAOS.CAOS.KUN.NL

**CINECA, NE Italy Interuniversity Computing Center, Caselecchio di Reno (BO)**

contact Salvatore Rago telephone 0039-51-598411 e-mail ARGO@ICINECA

**EMBL, European Molecular Biology Laboratory, Heidelberg, FRG**

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**\*JAICI, Japan Association for International Chemical Information, Tokyo**

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**Pittsburgh Supercomputing Center**

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contact Wayne Rindone telephone 617-873-2669 e-mail PROPHET-HELP@BBN.COM

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TABLE 1. PROTEIN DATA BANK, INFORMATION AVAILABLE ON MAGNETIC TAPE  
15-JUL-1990

CODE	ITEM
DATAFRTP	ALL CURRENT COORDINATE ENTRIES (TABLE 5), COMPUTER PROGRAMS (TABLE 3, PART A), ALL CURRENT BIBLIOGRAPHIC ENTRIES (TABLE 7 - NO COORDINATES IN BIB ENTRIES)
YEARS9TP	NEW OR REVISED COORDINATE ENTRIES FOR 1989
PART90TP	NEW OR REVISED COORDINATE ENTRIES FOR 1990 (TO DATE)
PDBPGHTP	COMPUTER PROGRAMS AND MISCELLANEOUS FILES (TABLE 3, PARTS A AND B)
NONST1TP	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 1)
NONST2TP	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 2)
NONST3TP	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 3)
NONST4TP	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 4)
NONST5TP	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 5)
NONST6TP	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 6)
NONST7TP	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 7)
NONST8TP	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 8)
BENDERTP	PARAMETERS FOR BENT-WIRE MODELS
BLDKITTP	MODEL BUILDER'S KIT (PLEASE CONSULT BROOKHAVEN FOR DETAILS)
CONECTTP	CONNECTIVITY SPECIFICATIONS FOR ALL ATOMS
DGPILOTTP	DIAGONAL PLOTS (LINE PRINTER)
DIBDRLTP	COMPLETE TORSION ANGLES
DSINCETP	CONNECTIVITY SPECIFICATIONS WITH DISTANCES
FISIP1TP	PHI/PSI PLOTS (LINE PRINTER)
PHIPI1TP	LISTS OF PHI/PSI/OMEGA VALUES

\* NEW OR REPLACEMENT ENTRY SINCE APR-1990 NEWSLETTER

TABLE 2. PROTEIN DATA BANK, INFORMATION AVAILABLE ON MICROFICHE  
15-JUL-1990

CODE	ITEM
DATAFRFI	ALL CURRENT COORDINATE ENTRIES (TABLE 5), COMPUTER PROGRAMS (TABLE 3, PART A), ALL CURRENT BIBLIOGRAPHIC ENTRIES (TABLE 7 - NO COORDINATES IN BIB ENTRIES)
YEARS9FI	NEW OR REVISED COORDINATE ENTRIES FOR 1989
PART90FI	NEW OR REVISED COORDINATE ENTRIES FOR 1990 (TO DATE)
CORR30FI	*LIST OF CORRECTIONS NO. 30 (APR/1990 - JUL/1990)
NONST1FI	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 1)
NONST2FI	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 2)
NONST3FI	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 3)
NONST4FI	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 4)
NONST5FI	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 5)
NONST6FI	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 6)
NONST7FI	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 7)
NONST8FI	STRUCTURE FACTOR HOLDINGS (TABLE 4 - PART 8)
BENDERFI	PARAMETERS FOR BENT-WIRE MODELS
BLDKITFI	MODEL BUILDER'S KIT (PLEASE CONSULT BROOKHAVEN FOR DETAILS)
CONECTFI	CONNECTIVITY SPECIFICATIONS FOR ALL ATOMS
DGPILOTFI	DIAGONAL PLOTS (LINE PRINTER)
DIBDRLFI	COMPLETE TORSION ANGLES
DSINCEFI	CONNECTIVITY SPECIFICATIONS WITH DISTANCES
FISIP1FI	PHI/PSI PLOTS (LINE PRINTER)
PHIPI1FI	LISTS OF PHI/PSI/OMEGA VALUES

\* NEW OR REPLACEMENT ENTRY SINCE APR-1990 NEWSLETTER

TABLE 3. PROTEIN DATA BANK, COMPUTER PROGRAMS AND MISCELLANEOUS FILES  
15-JUL-1990

NAME	PURPOSE	AUTHOR(S)	REV DATE/ SUPPORTED
<b>PART A - AVAILABLE ON DATAFRTP, DATAFRFI, PDBPGHTP</b>			
BENDER	PARAMETERS FOR BENT-WIRE MODELS	G. WILLIAMS	4/82 YES
BLDKIT	MODEL BUILDER'S KIT	E. ABOLA	2/84 YES
BRUKPT	MAKE VAX/VMS FILES FROM PDB TAPE	H. BOGSEARD	8/85 NO
CONECT	GENERATE FULL CONNECTIVITY	F. BERNSTEIN	7/89 YES
CONCTC	INTERMOLECULAR CONTACTS	L. ANDREWS	5/83 NO
DGPILOT	DIAGONAL PLOTS ON PRINTER	E. SWANSON, F. BERNSTEIN	1/83 YES
DIBDRL	COMPLETE TORSION ANGLES	E. ABOLA	3/80 YES
DIRECTY	DIRECTORY OF PDB DISTRIBUTION TAPE	E. ABOLA	7/86 YES
DSINCE	CALC DISTANCES FROM CONECT RECORDS	F. BERNSTEIN	8/82 YES
FISIP1	PHI/PSI PLOTS ON PRINTER	F. BERNSTEIN	5/79 YES
LSM	COLOR-CODED ALPHA-CARBON MODELS	R. MATHELA, R. FLETTERICK	3/82 NO
NAMCO	BALL-AND-STICK MODEL DISPLAY	Y. BEPPO	4/89 NO
PHIPI1	MAIN-CHAIN TORSION ANGLES	ANDREWS, WILLIAMS, BERNSTEIN	2/79 YES
REFMTE	REFORMAT DATA FOR SUPERTAB, SUPERR	L. RELLICK, J. DUANE	12/83 NO
STEREO	EXTRACT X, Y, Z FROM STEREO DIAGRAMS	M. ROSSMANN	6/79 NO
TAPDIR	PRINT DIRECTORY OF TAPE CONTENTS	H. BERNSTEIN, F. BERNSTEIN	11/79 YES
TREOD	MEASURE COORDINATES WITH TREODOLITE	L. LESIODA	1/82 NO
TORSUD	COMPLETE TORSION ANGLES	G. REEKE	10/79 NO
TOTALS	VALIDATION OF MASTER RECORD	L. ANDREWS, F. BERNSTEIN	3/82 YES
<b>PART B - AVAILABLE ON PDBPGHTP</b>			
ALB	SECONDARY STRUCT. CALC., PREDICTION	A. FINKELSTEIN, O. PRITSYN	10/85 NO
CRYSTAL	DATA BASE-PROTEIN CRYSTALLIZATION	G. GILLILAND	12/84 NO
NDB	NUCLEIC ACID DATA BASE + PROGRAMS	E. BERMAN ET AL.	9/89 NO
NHML90	DNA HELIX ANALYSIS	R. DICKERSON ET AL.	3/90 NO
NUPARM	*NUCLEIC ACID PARAMETER DETERMINATION	M. BANSAI, D. BHATTACHARYYA	5/90 NO
TABLES	DISPLAY SPACE-GROUP SYMMETRY IN 3D	C. ABAD-ZAPATERO, T. O'DONNELL	12/87 NO

\* NEW OR REPLACEMENT ENTRY SINCE APR-1990 NEWSLETTER

SUPPORTED PROGRAMS ARE THOSE FOR WHICH STAFF OF THE PROTEIN DATA BANK WILL PROVIDE CORRECTIONS FOR DEMONSTRATED ERRORS.

TABLE 4. PROTEIN DATA BANK, STRUCTURE FACTOR HOLDINGS  
15-JUL-1990

IDMT CODE	MOLECULE	DEPOSITOR	DATE/ CODE
<b>PART 1 - AVAILABLE ON NONST1TP, NONST1FI</b>			
RLACTSF	ACTININOM	E. BAKER	7/77 SF
RCMYOF	ALPHA-CYANOTRYP SIN (TOSYL)	D. BLOW	4/73 SF
RCARP04	CALCIUM-BINDING PARVALBUMIN	R. KRETSINGER	2/74 SF
RCARP05	CALCIUM-BINDING PARVALBUMIN	R. KRETSINGER	2/74 SF
R2B5C5F	CYTOCHROME B5	F. S. MATHEWS	12/77 SF
R3CYT5F	CYTOCHROME C (ALBACORE, OXIDIZED)	T. TAKANO, R. DICKERSON	7/80 SF
R4CYT5F	CYTOCHROME C (ALBACORE, REDUCED)	T. TAKANO, R. DICKERSON	7/80 SF
RCYCS501	CYTOCHROME C550	R. TIMOVICH	4/76 SF
R1N8ASF	DNA (8 (PRIME), CGCG, HIGH-SALT, SYNTHETIC)	H. DREW, R. DICKERSON	1/81 SF
R1N8ASF	DNA (8, CCGCAATCGCG, SYNTHETIC, 290 K)	H. DREW, R. DICKERSON	1/81 SF
RGD04	GLYCERALDEHYDE-3-P-DEHYDROGENASE (LOBSTR)	H. ROSSMANN	8/75 SF

R2GPDFS	APO-GLYCERALDEHYDE-3-P-DEHYDROGENASE	H. ROSSMANN	12/79 SF
R2MB5SF	HEMOGLOBIN (HORSE, AQUO MET AND CO)	LADNER, BEIDNER, FERUTZ	6/80 SF
R1FDHSF	HEMOGLOBIN (HUMAN, FETAL, DEOXY)	J. FRIER	6/80 SF
R0UHDE02	HEMOGLOBIN (HUMAN, DEOXY)	M. FERUTZ, G. FERMI	5/75 SF
LAMPXY1	HEMOGLOBIN (LAMPREY)	HENDRICKSON, LOVE, KARLE	5/73 SF
R1DR06	APO-H4-LACTATE DEHYDROGENASE (DOGFISH)	M. ROSSMANN	8/75 SF
R1DR07	LACTATE DEHYDROGENASE/HAD/FYRUVATE	M. ROSSMANN	8/75 SF
R5LDH5F	LACTATE DEHYDROGENASE/S-LAC/HAD (PIG)	U. GRAB, H. ROSSMANN	1/81 SF
R1L8H5F	LYSOZYME (HEN EGG-WHITE, MONOCLINIC)	C. BLAKE, D. RICE	6/81 SF
R2L8H5F	LYSOZYME (HEN EGG-WHITE, ORTHORHOMBIC)	C. BLAKE, D. RICE	6/81 SF
RHETHYF1	MYOGLOBIN (SPERM WHALE, MET)	T. TAKANO	6/76 SF
RDEHYF1	MYOGLOBIN (SPERM WHALE, DEOXY)	T. TAKANO	6/76 SF
R4THASF	TRANSFER RNA (YEAST, PHE)	A. JACK, J. LADNER, A. KLUG	6/80 SF

<b>PART 2 - AVAILABLE ON NONST2TP, NONST2FI</b>			
R1CCR5F	CYTOCHROME C (RICE)	H. OCHI, N. TANAKA	3/83 SF
R351C5F	CYTOCHROME C551 (OXIDIZED)	T. TAKANO, R. DICKERSON	9/81 SF
R451C5F	CYTOCHROME C551 (REDUCED)	T. TAKANO, R. DICKERSON	9/81 SF
R1NAN5F	DNA (A, D-1000-CGCG) SPACE GROUP P 43 2 1	B. CONNER, R. DICKERSON	6/82 SF
R1NAN2	DNA (A, D-1000-CGCG) SPACE GROUP P 21	B. CONNER, R. DICKERSON	6/82 SF
R2BNA5F	DNA (8, CCGCAATCGCG, SYNTHETIC, 16 K)	H. DREW, R. DICKERSON	11/81 SF
R3BNA5F	DNA (8, 9-BR-CGCAATCGCG, 20 DEG C)	KOPKA, FRATINI, DICKERSON	8/82 SF
R4BNA5F	DNA (8, 9-BR-CGCAATCGCG, 7 DEG C)	KOPKA, FRATINI, DICKERSON	8/82 SF
R5BNA5F	DNA (8, CCGCAATCGCG, SYNTHETIC) / CISPLATIN	MING, NJURA, DREW, DCKSHR	8/83 SF
R1GAA5F	GLUTAMINASE-ASPARAGINASE (ACINETOBACTER)	B. AMON	12/82 SF
R1GAS5F	GLUTAMINASE-ASPARAGINASE (PSEUDOMONAS TA)	B. AMON	12/82 SF
R1RQ5F	HEMERYTHRIN (MET)	STENKAMP, SIEKER, JENSEN	2/83 SF
R1RZ5F	HEMERYTHRIN (ASIDO, MET)	STENKAMP, SIEKER, JENSEN	2/83 SF
R2INS5F	INSULIN (BOVINE, 2-ZINC) DES-PHE B1	C. REYNOLDS, G. DODSON	5/82 SF
R1R15F	LEGHEMOGLOBIN (ACETATE MET)	VAINSSTEIN, HARUTYUNYAN	4/82 SF
R1R25F	LEGHEMOGLOBIN (ACETATE MET)	VAINSSTEIN, HARUTYUNYAN	4/82 SF
R1R35F	LEGHEMOGLOBIN (AQUO MET)	VAINSSTEIN, HARUTYUNYAN	4/82 SF
R1R45F	LEGHEMOGLOBIN (CYANO MET)	VAINSSTEIN, HARUTYUNYAN	4/82 SF
R1R55F	LEGHEMOGLOBIN (CYANO MET)	VAINSSTEIN, HARUTYUNYAN	4/82 SF
R1R65F	LEGHEMOGLOBIN (DEOXY)	VAINSSTEIN, HARUTYUNYAN	4/82 SF
R1R75F	LEGHEMOGLOBIN (DIOXY)	VAINSSTEIN, HARUTYUNYAN	4/82 SF
R1R85F	LEGHEMOGLOBIN (FLUORO MET)	VAINSSTEIN, HARUTYUNYAN	4/82 SF
R1R95F	LEGHEMOGLOBIN (FLUORO MET)	VAINSSTEIN, HARUTYUNYAN	4/82 SF
R1R105F	LEGHEMOGLOBIN (NICOTINATE MET)	VAINSSTEIN, HARUTYUNYAN	4/82 SF
R1R115F	LEGHEMOGLOBIN (NICOTINATE MET)	VAINSSTEIN, HARUTYUNYAN	4/82 SF
R1R125F	LEGHEMOGLOBIN (FERRO) / NITROSOBENZENE	VAINSSTEIN, HARUTYUNYAN	2/83 SF
R1R135F	LEGHEMOGLOBIN (FERRO) / NITROSOBENZENE	VAINSSTEIN, HARUTYUNYAN	2/83 SF
R1R145F	LYSOZYME (HEN EGG-WHITE, MONOCLINIC)	HOGUE, RAO, SUBRAMANINGAM	8/81 SF
R1R155F	LYSOZYME (HEN EGG-WHITE, MONOCLINIC)	TERMILLIGER, EISENBERG	8/81 SF
R1R165F	OMOVICOID FRAGMENT (JAPANESE QUAIL)	E. PAFAMOKOS, R. RUBER	1/82 SF
R2R25F	PROPHOSPHOLIPASE A2 (BOVINE)	DJUKSTRA, BOL, DRENTH	9/81 SF
R1R25F	INORGANIC PYROPHOSPHATASE	E. HARUTYUNYAN ET AL.	2/83 SF
R1R35F	RIBONUCLEASE A	BORKANOTI, MOSS, PALMER	6/82 SF
R2R45F	THERMOLYSIN (NATIVE)	B. MATTHEWS, M. HOLMES	2/82 SF
R2R55F	TRYP SIN (ORTHORHOMBIC, 2.4M (NH4)2SO4)	J. WALTER, R. RUBER	10/81 SF
R1R55F	TRYP SIN (ORTHORHOMBIC)	J. WALTER, R. RUBER	9/82 SF
R3R55F	TRYP SIN (TRIGONAL, 2.4M (NH4)2SO4)	J. WALTER, R. RUBER	10/81 SF
R3R65F	TRYP SIN (BENZAMIDINE INHIBITED)	J. WALTER, R. RUBER	9/82 SF
R1R75F	TRYP SIN / P-AMIDINO-PHENYL-PYRUVATE	WALTER, BOBE, DEISENHOFER	9/82 SF
R4R75F	TRYP SIN INHIBITOR (BOVINE, PANCREAS)	R. RUBER, J. DEISENHOFER	9/82 SF
R2R75F	TRYP SIN / TRYP SIN INHIBITOR COMPLEX	R. RUBER, J. DEISENHOFER	9/82 SF
R1R85F	TRYP SIN (ANHYDRO) / TRYP SIN INHIBITOR	RUBER, BOBE, DEISENHOFER	9/82 SF
R1R95F	TRYP SIN (2.4M MGSO4)	J. WALTER, R. RUBER	10/81 SF
R1R105F	TRYP SIN (2.5M MGSO4, .5 HOH)	J. WALTER, R. RUBER	10/81 SF
R1R115F	TRYP SIN (173 K, .7 CH3OH, .3 HOH)	J. WALTER, R. RUBER	10/81 SF
R2R125F	TRYP SIN (103 K, .7 CH3OH, .3 HOH)	J. WALTER, R. RUBER	10/81 SF
R2R135F	TRYP SIN (103 K, .7 CH3OH, .3 HOH)	J. WALTER, R. RUBER	10/81 SF
R3R15F	TRYP SIN (103 K, .7 CH3OH, .3 HOH)	R. RUBER ET AL.	9/82 SF
R2R15F	TRYP SIN (103 K, .7 CH3OH, .3 HOH)	R. RUBER ET AL.	9/82 SF
R2R15F	TRYP SIN (103 K, .7 CH3OH, .3 HOH)	R. RUBER ET AL.	9/82 SF
R1R15F	TRYP SIN (103 K, .7 CH3OH, .3 HOH)	R. RUBER ET AL.	9/82 SF

<b>PART 3 - AVAILABLE ON NONST3TP, NONST3FI</b>			
R1CAT5F	CATALASE (BEEF LIVER)	H. ROSSMANN	11/81 SF
R4CRASF	ALPHA-CYANOTRYP SIN (BOVINE)	H. TSUKADA, D. BLOW	11/84 SF
R2GCH5F	GAMMA-CYANOTRYP SIN	COHEN, DAVIES, SILVERTON	7/84 SF
R2C25F	CYTOCHROME C2 (OXIDIZED)	BRATIA, FINSEL, KRAUT	11/83 SF
R3C25F	CYTOCHROME C2 (REDUCED)	BRATIA, FINSEL, KRAUT	11/83 SF
R2NAN5F	DNA (8, CCGCGCCG, SYNTHETIC)	HCCALL, BROWN, KENARD	8/85 SF
R6NAN5F	DNA (8, CCGCAATCGCG, SYNTHETIC) / NITROPSIN	H. KOPKA, R. DICKERSON	9/84 SF
R7NAN5F	DNA (8, CCGCAATCGCG, ANISO TEMP FACTORS)	HOLBROOK, DICKERSON, KIM	1/85 SF
R1FX15F	GLUTATHIONE (D. VULGARIS, UNREFINED)	WATENPAUGE, STERK, JENSEN	10/84 SF
R1G115F	GLUTATHIONE PEROXIDASE (BOVINE)	O. EPP, R. LAESENHOFER	6/85 SF
R2H85F	HEMOGLOBIN (HUMAN, DEOXY)	G. FERMI, M. PERUTZ	3/84 SF
R1B805F	HEMOGLOBIN (HUMAN, OXY)	B. SHAMAN	3/84 SF
R1KCF5F	IGA F4B (KAPPA) HCF603	C. COHEN ET AL.	7/84 SF
R2HCF5F	IGA F4B (KAPPA) HCF603 / PHOSPHOCOLINE	PADLAN, COHEN, DAVIES	10/84 SF
R2KCF5F	IGG DVT FRAGMENT	S. BRYANT ET AL.	4/85 SF
R1L75F	LYSOZYME (HEN EGG-WHITE, TRICLINIC)	EDSON, BRUN, SIEKER, JENSEN	4/85 SF
R1B805F	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	3/84 SF
R2QV5F	OMOVICOID THIRD DOMAIN (SILVER PHEASANT)	M. BOBE, O. EPP	5/85 SF
R1P25F	PAPAIN D	J. JANSOHNIS	10/84 SF
R2R25F	PROTEINASE II (RAT MAST CELL)	S. RIMINGTON, B. MATTHEWS	9/84 SF
R5P15FX	PTI (X-RAY)	A. WLODAWER, R. RUBER	10/84 SF
R5P15FN	PTI (NEUTRON)	A. WLODAWER, R. RUBER	10/84 SF
R5R5A5FX	RIBONUCLEASE A (X-RAY)	A. WLODAWER	6/85 SF
R5R5A5FN	RIBONUCLEASE A (NEUTRON)	A. WLODAWER	6/85 SF
R5R5A5F	RUBREDOXIN (C. PASTEURIANUM)	WATENPAUGE, STERK, JENSEN	10/84 SF
R2V55F	VIRUS COAT PROTEIN (SBMV, T-1)	M. ROSSMANN	4/85 SF
R45V5F	VIRUS COAT PROTEIN (SOUTHERN BEAN MOSAIC)	M. ROSSMANN	4/85 SF

<b>PART 4 - AVAILABLE ON NONST4TP, NONST4FI</b>			
R2AP5F	RHISPOUSPEPSIN (ACID PROTEINASE)	K. SUGUNA, D. DAVIES	3/87 SF
R3W55F	AGGLUTININ (WHEAT GERM, ISOLECTIN 2)	C. WRIGHT	8/86 SF
R2A55F	AZURIN (ALCALIGENES DENITRIFICANS)	E. BAKER, C. MORRIS	10/86 SF
R1C35F	CALCIUM-BINDING PROTEIN (INTESTINAL)	D. SZEBENYI, K. MOFFAT	9/86 SF
R2C35F	CYTOCHROME C (PRIME)	F. FINSEL ET AL.	8/85 SF
R2C35F	CYTOCHROME C (PEROXIDASE (YEAST)	FINSEL, FOULOS, KRAUT	8/85 SF
R8NAN5F	DNA (CGCCGATCGCG, SYNTHETIC) / ROEHSST 33258F	P. NJURA, R. DICKERSON	8/86 SF
R1D45F	DNA (8-BR-CG-BR-CG-BR-CG, SYNTHETIC, 18 DEG C)	MORAS ET AL.	12/86 SF
R1D55F	DNA (8-BR-CG-BR-CG-BR-CG, SYNTHETIC, 37 DEG C)	MORAS ET AL.	12/86 SF
R1R55F	LYS 7-DNP-LYS 41 RIBONUCLEASE A	B. FINSEL ET AL.	8/86 SF
R1CT5F	L7/L12 50S RIBOSOMAL PROTEIN (C-TERMINAL)	M. LEI, JONHARCK, A. LILJAS	9/85 SF
R2R55F	HYDROEMERYTHRIN	SHERIFF, HENDRICKSON	4/87 SF
R1R75F	RIBONUCLEASE T1/GUANYLIC ACID COMPLEX	M. SAENGER ET AL.	7/87 SF
R6P75F	TRYP SIN INHIBITOR (FORM III, BOVINE)	A. WLODAWER	5/87 SF
R1V15F	POLYOMA VIRUS CAPSID	RAYMENT, BAKER, CASPAR	3/83 SF

<b>PART 5 - AVAILABLE ON NONST5TP, NONST5FI</b>			
R1R55F	MENGO VIRUS	H. ROSSMANN	2/87 SF

<b>PART 6 - AVAILABLE ON NONST6TP, NONST6FI</b>			
R2AP5F	ACID PROTEINASE/PEPTIDE INHIBITOR COMPLEX	U. SUGUNA, D. DAVIES	6/87 SF
R2R55F	DNA (A, CCGCGCCG, SYNTHETIC)	B. SHAMAN	7/88 SF
R1D85F	DNA (CGCAATCGCG) - ROEHSST 33258 COMPLEX	A. WANG ET AL.	2/88 SF
R3D85F	DNA (CGCAATCGCG)	G. PRIVE, R. DICKERSON	3/88 SF
R1D165F	DNA (CGCCGCTTTTCGCGCG)	R. DICKERSON ET AL.	4/88 SF

R3ANASF	DNA (A, GGGATCCC, SYNTHETIC)	U. HEINEMANN, H. LAUBLE	7/88	SF
R3E5T5F	ELASTASE (PORCINE)	E. MEYER ET AL.	9/87	SF
R3I5N5F	INSULIN (PORCINE, XRAY+NEUTRON)	A. WLODAMER, H. SAVAGE	10/88	SF
R3I5P5F	PHOSPHOFRUCTOKINASE (E. COLI) -F6P-ADP/MC	W. BYRNEMSKI, P. EVANS	1/88	SF
R3I5K5F	PHOSPHOFRUCTOKINASE (E. COLI)	P. EVANS, P. HUDSON	1/88	SF
R3I5K5F	PHOSPHOFRUCTOKINASE (B. ST.)	P. EVANS, P. HUDSON	1/88	SF
R4F5K5F	PHOSPHOFRUCTOKINASE (B. ST.)	P. EVANS, P. HUDSON	1/88	SF
R5F5K5F	PHOSPHOFRUCTOKINASE (B. ST.) T-STATE	P. EVANS, P. HUDSON	1/88	SF
R1P5Z5F	PSEUDOURIDIN (ALCALIGENES FAECALIS)	P. PETRATOS, D. DAUTER, WILSON	6/88	SF
R7R5J5F	RIBONUCLEASE A (PHOSPHATE-FREE)	A. WLODAMER, G. GILLILAND	6/88	SF
R4R5V5FA	REINOVIRUS 14 (HUMAN)	E. ARNOLD, M. ROSSMANN	8/87	SF
R4R5V5FB	REINOVIRUS 14 (HUMAN) 5PM KAU (CN) 2 DERIV	E. ARNOLD, M. ROSSMANN	8/87	SF
R4R5V5FC	REINOVIRUS 14 (HUMAN) 1PM KAU (CN) 2 DERIV	E. ARNOLD, M. ROSSMANN	8/87	SF

PART 7 - AVAILABLE ON NONSTFTT, NONSTFTI

R5CVT5F	CYTOCHROME C (ALBACORE, REDUCED)	T. TAKANO	1/88	SF
R1D5I5F	DNA (CGAAGCCGTGG)	U. HEINEMANN	8/89	SF
R1D5N5F	DNA (CGCATATATGCG)	C. YOON, R. DICKERSON	4/89	SF
R4G5D5F	AP0-GLYCERALDEHYDE-3-P-DEHYDROGENE (LBSTR)	GRIFFITH, SONG, ROSSMANN	1/88	SF
R1C5B5T	HEMOGLOBIN (ALPHA-FERROUS, BETA-COBALTOSUS) L.LUISI	J. LUISI	1/89	SF
R3I5M5F	HYHEL-10 FAB/LYSOZYME COMPLEX	E. PADLAN, D. DAVIES	8/88	SF
R2F5J5F	*IGA FAB (KAPPA) J539	BHAT, PADLAN, DAVIES	8/89	SF
R1L5D5F	AP0-1-LDR (BACILLUS STEAROTHEROPHILUS)	K. P. IONTEK, M. ROSSMANN	3/89	SF
R2L5D5F	LDR (BACILLUS STEAROTHEROPHILUS)	K. P. IONTEK, M. ROSSMANN	3/89	SF
R1L5L5F	LACTATE DEHYDROGENASE (H. CASEI)	BUEHNER, RECHT, HENSEL	11/88	SF
R2L5D5F	LACTATE DEHYDROGENASE (MUSCLE TESTES)	M. ROSSMANN	11/87	SF
R2L5T5F	LYSOZYME (TRICLINIC)	R. HANAUER, SIEKER, JHSH	9/88	SF
R2L5Z5F	LYSOZYME (TRICLINIC)	M. PARSONS, S. PHILLIPS	9/88	SF
R4M5D5F	HALATE DEHYDROGENASE (PORCINE)	J. BIRKHOFF, L. BANASIAK	4/89	SF
R1P5H5F	MYOGLOBIN (PIG)	A. WILKINSON ET AL.	11/89	SF
R4M5N5F	MYOGLOBIN (SPERM WHALE, MET)	T. TAKANO	1/88	SF
R5M5N5F	MYOGLOBIN (SPERM WHALE, DEOXY)	T. TAKANO	1/88	SF
R1P5R5F	PROTOSYNTHETIC REACTION CENTER	J. DEISENHOFER ET AL.	2/88	SF
R2R5T5F	RIBONUCLEASE T1/GUANYL-2', 5'-GUANOSINE	U. HEINEMANN ET AL.	7/88	SF
R2R5P5F	ROCS SARCCHA VIRUS PROTEASE	A. WLODAMER ET AL.	10/89	SF
R1R5D5F	RUBREDOXIN (DESULFOVIBRIO GIGAS)	FREY, SIEKER, PAYAN	3/88	SF
R1T5C5F	THEBUTHALIN-C COMPLEX	F. GROS, B. DIJNSTRA, M. BOLS/89	8/89	SF
R2T5R5F	TRANSFER RNA (YEAST, ASP, FORM A)	WESTROF, DUHAS, MORAS	11/87	SF
R3T5R5F	TRANSFER RNA (YEAST, ASP, FORM B)	WESTROF, DUHAS, MORAS	11/87	SF

PART 8 - AVAILABLE ON NONSTFTT, NONSTFTI

R1B5V5F	*BEAN POD MOTTLE VIRUS	J. JOHNSON	10/89	SF
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\* NEW OR REPLACEMENT ENTRY SINCE APR-1990 NEWSLETTER

CODES  
SF STRUCTURE FACTORS  
TABLE 5. PROTEIN DATA BANK, ATOMIC COORDINATE HOLDINGS  
15-JUL-1990

IDENT CODE	MOLECULE	DEPOSITOR (S)	DATE/STATUS
<b>ANTI-HYPERTENSIVE, ANTI-VIRAL</b>			
1BDS	BDS-I (SEA ANEMONE) (NMR HIN AVRGD STRUCT)	CLORE, DRISCOLL, GRONENBORN	11/88
2BDS	BDS-II (SEA ANEMONE) (NMR, 42 STRUCTURES)	CLORE, DRISCOLL, GRONENBORN	11/88
<b>CALCIUM BINDING PROTEIN</b>			
3CLN	CALMODULIN (RAT)	Y. BABU, C. BUGG, M. COOK	5/88 R
1ALC	ALPHA-LACTALBUMIN (BABOON)	ACHARYA, STUART, PHILLIPS	8/89
<b>COAGULATION INHIBITOR</b>			
5BIR	HIRUDIN (NMR, MIN AVERAGED STRUCTURE)	CLORE, GRONENBORN ET AL.	1/90
2BIR	HIRUDIN (NMR, 32 STRUCTURES)	CLORE, GRONENBORN ET AL.	12/88
5BIR	HIRUDIN (NMR, K47E, MIN AVERAGED STRUCTURE)	CLORE, GRONENBORN ET AL.	1/90
4BIR	HIRUDIN (NMR, K47E, 32 STRUCTURES)	CLORE, GRONENBORN ET AL.	12/88
<b>CONTRACTILE SYSTEM PROTEIN</b>			
1CPV	CALCIUM-BINDING PARVALBUMIN SET 6A	R. KRETSINGER	8/74
2CPV	CALCIUM-BINDING PARVALBUMIN SET 6B	R. KRETSINGER	8/74
3CPV	CALCIUM-BINDING PARVALBUMIN SET 6I	R. KRETSINGER	8/74
1JCB	CALCIUM-BINDING PROTEIN (INTESTINAL)	D. SEEBENYI, K. HOFFAT	9/86
2TMA	ALPHA TROPOMYOSIN	G. PHILLIPS JR., C. COHEN	9/87 A
4TNC	TROPONIN C (CHICKEN)	M. SUNDARALINGAM	9/87
5TNC	TROPONIN C (TURKEY)	O. HERBERG, H. JAMES	5/88 R
<b>CRYSTALLIN</b>			
1GCA	GAMMA-II CRYSTALLIN (CALF)	T. BLUNDELL	8/85
2GCA	GAMMA IV CRYSTALLIN (BOVINE LENS)	R. DRISSEN ET AL.	5/89
<b>CYTOKINE</b>			
111B	INTERLEUKIN 1B (HUMAN)	FINSIEL, WATENPAUGH, EINSFAHR	12/89
211B	INTERLEUKIN 1B (HUMAN)	PIRSTLE, SCHAEER, GRUTTER	1/90
411B	INTERLEUKIN 1B (HUMAN)	VEERAPANDIAN, POULOS ET AL.	3/90
<b>DNA BINDING</b>			
3GAP	CATABOLITE GENE ACTIVATOR PROTEIN/CAMP	I. WEBER, T. STEITS	4/87
1CRO	CRO REPRESSOR PROTEIN	B. MATTHEWS ET AL.	6/87 A
2CRO	CRO (PAGE 434)	S. HARRISON ET AL.	12/88
1R69	R1-69 N-TERMINUS OF 434 REPRESSOR	S. HARRISON ET AL.	12/88
2OR1	*R1-69 (PAGE 434) /OR1 COMPLEX	AGGARWAL, ANDERSON, HARRISON	9/89
2GNS	GENE-5 DNA BINDING PROTEIN	G. BRAYER, A. McPHERSON	1/86
1LRP	LAMBDA REPRESSOR (BACTERIOPHAGE LAMBDA)	C. PASO, H. LEWIS	12/87 A
1LAD	LAMBDA REPRESSOR/DNA	S. JORDAN, C. PASO	10/88
1MRP	TRP REPRESSOR (TRIGONAL)	P. SIGLER ET AL.	12/87
2MRP	TRP REPRESSOR (ORTHO-RHOMBIC)	P. SIGLER ET AL.	12/87
3MRP	AP0-TRP REPRESSOR	P. SIGLER ET AL.	12/87
<b>ELECTRON TRANSFER (cuproprotein)</b>			
2AZA	AZURIN (ALCALIGENES DENITRIFICANS)	E. BAKER, G. MORRIS	10/86
1AUU	AZURIN (PSEUDOMONAS AERUGINOSA)	E. ADMAN, L. SIEKER, L. JENSEN	8/80
1CBP	CUCUMBER BASIC PROTEIN	J. M. GUSS	9/88 A
1PCY	PLASTOCYANIN (POPLAR, CU2+)	J. GUSS, B. FREEMAN	8/80
2PCY	PLASTOCYANIN (POPLAR, APO)	GARETT, GUSS, FREEMAN	11/83
3PCY	PLASTOCYANIN (BZZ+ SUBSTITUTED)	CHURCH, GUSS, POTTER, FREEMAN	12/85
4PCY	PLASTOCYANIN (CROSS-LINKED, CU+1, PR 7.8)	J. M. GUSS	9/86
5PCY	PLASTOCYANIN (CU+1, PR 7.0)	J. M. GUSS	9/86
6PCY	PLASTOCYANIN (CU+1, PR 3.8)	J. M. GUSS	9/86
7PCY	*CU-II PLASTOCYANIN	COLLIYER, GUSS, FREEMAN	9/89
1PAZ	PSEUDAZURIN (ALCALIGENES FAECALIS)	P. PETRATOS, D. DAUTER, WILSON	6/88
2PAZ	PSEUDAZURIN (ALCALIGENES FAECALIS)	E. ADMAN, K. PETRATOS	9/88
<b>ELECTRON TRANSFER (cytochrome)</b>			
2B5C	CYTOCHROME B5 (OXIDIZED)	F. S. MATHEWS	12/77
156B	CYTOCHROME B562 (E. COLI, OXIDIZED)	BETHGE, CIERWINSKI, MATHEWS	8/79
3C7T	CYTOCHROME C (ALBACORE, OXIDIZED)	T. TAKANO, R. DICKERSON	7/80
3C7T	CYTOCHROME C (ALBACORE, REDUCED)	T. TAKANO, C. PASO	1/88 R
1CVY	CYTOCHROME C (BONITO, HEART)	M. KAKUDO	8/86
1CCR	CYTOCHROME C (RICE)	B. OCHI, N. TANAKA	3/83
2CCY	CYTOCHROME C (PRIME)	B. FINSIEL ET AL.	8/85
2C2C	CYTOCHROME C2 (OXIDIZED)	G. BHATIA, B. FINSIEL, J. KRAUT	11/83
3C2C	CYTOCHROME C2 (REDUCED)	G. BHATIA, B. FINSIEL, J. KRAUT	11/83
1CY3	CYTOCHROME C3	R. BASER, H. FREY, F. PAYAN	6/85
2CDV	CYTOCHROME C3 (DESULFOVIBRIO VULGARIS)	N. YASUOKA, M. KAKUDO	11/83
1CC5	CYTOCHROME C5 (OXIDIZED, AZOTOBACTER VINCI)	C. D. STOUT, D. CARTER	8/84
155C	CYTOCHROME C550	R. TIMKOVICH	8/76
351C	CYTOCHROME C551 (OXIDIZED)	HATSUURA, TAKANO, DICKERSON	7/81
451C	CYTOCHROME C551 (REDUCED)	HATSUURA, TAKANO, DICKERSON	7/81

<b>ELECTRON TRANSFER (flavoprotein)</b>			
3FXN	FLAVOXYDIN (CLOSTRIDIUM HP, OXIDIZED)	M. LUDMIG	12/77
4FXN	FLAVOXYDIN (CLOSTRIDIUM HP, SEMIQUINONE)	M. LUDMIG	12/77
1FX1	FLAVOXYDIN (D. VULGARIS, UNREFINED)	WATENPAUGH, SIEKER, JENSEN	10/84
<b>ELECTRON TRANSFER (iron-sulfur protein)</b>			
4FD1	FERREDOXIN (AZOTOBACTER VINELANDII)	C. D. STOUT	6/88 R
1FD2	FERREDOXIN MUTANT (C20A)	C. D. STOUT	12/88
1FKB	FERREDOXIN (B. THERMOPROTEOLYTICUS)	FUKUYAMA, TSUKIHARA, KATSUBE	6/88
1FDX	FERREDOXIN (PSEUDOCOCUS AERUGINOSUS)	E. ADMAN, L. SIEKER, L. JENSEN	8/76
3PYC	FERREDOXIN (PSEUDOCOCUS AERUGINOSUS)	TSUKIHARA, KATSUBE, KAKUDO	12/81
1B1P	HIGH POTENTIAL IRON PROTEIN	J. KRAUT	4/75
4R1K	RUBREDOXIN (C. PASTEURIANUM, UNCONSTR REF)	WATENPAUGH, SIEKER, JENSEN	10/84
5R1K	RUBREDOXIN (C. PASTEURIANUM, NRG+XTAL REF)	K. WATENPAUGH	10/84
1RGG	RUBREDOXIN (DESULFOVIBRIO GIGAS)	M. FREY, L. SIEKER, F. PAYAN	3/88
3R1N	RUBREDOXIN (DESULFOVIBRIO VULGARIS)	E. ADMAN, L. SIEKER, L. JENSEN	9/80
<b>ELONGATION FACTOR</b>			
1EFH	ELONGATION FACTOR TU (TRYPSIN-MODIFIED)	F. JURNAK	5/87 A
1EFO	ELONGATION FACTOR TU (DOMAIN I) /GDP CHLXK.LA COUR ET AL.		1/88
<b>EXCITATION ENERGY TRANSFER</b>			
3BCL	BACTERIOPHAGE T4 PHAGE CAPSID GLYCOSIDE INHIBITOR	TRONRUD, SCHMID, MATTHEWS	6/87
1B0E	ALPHA-AMYLASE INHIBITOR ROE-467A	FLUGRATH, MIEGAND, RUBER	1/89
2A1T	TENDAHISTAT (NMR, 9 STRUCTURES)	K. WUERTHIC ET AL.	5/89
<b>HORMONE</b>			
1PPT	AVIAN PANCREATIC POLYPEPTIDE	T. BLUNDELL	1/81
1YX1	DEAMINO-OXYTOCIN (WET FORM)	T. BLUNDELL ET AL.	5/87
1YX2	DEAMINO-OXYTOCIN (DRY FORM)	T. BLUNDELL ET AL.	5/87
1GCH	GLUCAGON	T. BLUNDELL	10/77
2IHS	INSULIN (BOVINE, 2-ZINC) DES-PRE B1	C. REYNOLDS, G. DODSON	5/82
3IHS	INSULIN (BOVINE, XRAY+NEUTRON)	A. WLODAMER, H. SAVAGE	10/88
4IHS	INSULIN (PORCINE, 2-ZINC)	G. DODSON ET AL.	7/89 R
<b>HISTOCOMPATIBILITY ANTIGEN</b>			
1ELA	HISTOCOMPATIBILITY ANTIGEN A2 (HUMAN)	D. WILEY ET AL.	10/87 A
2ELA	HLA-A*0602	G. GARRETT, SAPER, WILEY	10/89
3ELA	HLA-A*02	D. WILEY ET AL.	10/89
<b>IMMUNOGLOBULIN</b>			
1MCG	IMMUNOGLOBULIN B-J INTACT MCG	SCHIFFER, EDMUNDSON ET AL.	5/78 A
1REI	IMMUNOGLOBULIN B-J FRAGMENT (V-DIMER) REI	O. EFF, R. RUBER	3/76
2RBE	IMMUNOGLOBULIN B-J FRAGMENT (V-DIMER) RBE	FURUY, WANG, YOO, SAX	6/83
2FB+	*IGA FAB (KAPPA) J539	T. BEAT, E. PADLAN, D. DAVIES	8/89 R
1HET	IGA FAB (KAPPA) HCC03	SATOH, COHEN, PADLAN, DAVIES	7/84
2HCP	IGA FAB (KAPPA) HCC03/PHOSPHOCHOLINE	E. PADLAN, G. COHEN, D. DAVIES	10/84
2MFC	IGG1 FAB (LAMBDA) KOL	M. MARQUART, R. RUBER	4/89 R
3FAB	IMMUNOGLOBULIN FAB (PRIME) NEW	R. POLJAK ET AL.	9/81
4FAB	*IMMUNOGLOBULIN 4-4-20 FAB/FLUORESCIN	A. EDMUNDSON ET AL.	4/89
1F19	FAB F19.9 (MOUSE)	R. POLJAK ET AL.	11/88
1FC1	IMMUNOGLOBULIN FC (HUMAN)	J. DEISENHOFER	5/81
1FC2	IMMUNOGLOBULIN FC-FRAGMENT B COMPLEX	J. DEISENHOFER	5/81
1PFC	IGG PFC FRAGMENT	L. M. AHEEL	10/81
2IG2	IGG1 (LAMBDA) KOL	M. MARQUART, R. RUBER	4/89 R
<b>COMPLEX (immunoglobulin-antigen)</b>			
2HE1	HEBEL-5 FAB/LYSOZYME COMPLEX	S. SHERIFF, D. DAVIES	8/87
3BEM	HYHEL-10 FAB/LYSOZYME COMPLEX	E. PADLAN, D. DAVIES	8/88
<b>LECTIN</b>			
2CNA	CANAVANALIN A	G. REEKE, J. BECKER, G. EDELMAN	4/75
3CNA	CANAVANALIN A	K. BARMAN	8/76
1CN1	CANAVANALIN A (DEMETALLIZED)	M. SROOGAN	12/81
3MGA	AGGLUTININ (WHEAT GERM, ISOLECTIN 2)	C. WIGST	3/86
2L2T	*PEA LECTIN	SUDDATH, PHILLIPS, EINSFAHR	6/90
<b>LYMPHOKINE</b>			
1TNP	TUMOR NECROSIS FACTOR	H. ECK, S. SPRANG	8/89
<b>MEMBRANE GLYCOPROTEIN</b>			
1BEG	BANARAGLUTININ (INFLUENZA VIRUS)	D. WILEY	6/86
<b>NUCLEIC ACID ASSOCIATED PROTEIN</b>			
1UQ0	UBIQUITIN (HUMAN)	VIJAY-KUMAR, BUGG, COOK	1/87
<b>ONCOGENE PROTEIN</b>			
2P21	C-H-RAS P21 PROTEIN (CATALYTIC DOMAIN)	S.-B. KIM	7/89 A
3P21	C-H-RAS P21 PROTEIN MUTANT (G12V)	S.-B. KIM	1/90 A
<b>OXYGEN STORAGE</b>			
1MBA	MET MYOGLOBIN (APLYSIA LIMACINA) PH 7.0	M. BOLOGNESI ET AL.	2/89
2MBA	MET MYOGLOBIN (A. LIMACINA) /AZIDE PH 7.0	M. BOLOGNESI ET AL.	2/89
3MBA	MET MYOGLOBIN (A. LIMACINA) /FLUORIDE PH 7.0	M. BOLOGNESI ET AL.	2/89
4MBA	MET MYOGLOBIN (A. LIMACINA) /IMIDAZOLE	M. BOLOGNESI ET AL.	2/89
1MHB	MYOGLOBIN (PIG)	A. WILKINSON ET AL.	11/89
1MBS	MYOGLOBIN (SPERM WHALE, MET)	R. SCULLOUBI	3/79
1MBD	MYOGLOBIN (SPERM WHALE, DEOXY)	S. PHILLIPS	8/81
1MBN	MYOGLOBIN (SPERM WHALE, MET)	E. WATSON	4/73
4MBS	MYOGLOBIN (SPERM WHALE, MET)	T. TAKANO	1/88 R
5MBS	MYOGLOBIN (SPERM WHALE, DEOXY)	T. TAKANO	1/88 R
1MBO	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	8/81
1MBS	MYOGLOBIN (SPERM WHALE, CO, NEUTRON)	R. JONSON, NORVELL, SCHOENBORN	11/82
1MBC	MYOGLOBIN (SPERM WHALE, CARBONMONOX, 260 K)	J. KURIYAN, G. PETSKO	9/88
<b>OXYGEN TRANSPORT</b>			
1EBB	HEMPHYTERIN B	M. HENDRICKSON	6/76 A
1EB3	HEMPHYTERIN (AZIDO, MET, SIPHONOSOMA)	SMITH, HENDRICKSON, ADDISON	5/83 A
1EBQ	HEMPHYTERIN (MET)	STENKAMP, SIEKER, JENSEN	2/83
1EBE	HEMPHYTERIN (AZIDO, MET)	STENKAMP, SIEKER, JENSEN	2/83
1EDS	HEMOGLOBIN (DEER, SICKLE CELL)	E. ABMA, R. GIRLING	10/79
1ECA	ERYTHROCUORIN (AQUO, MET)	M. STEIGEMANN, E. WEBER	3/79
1ECD	ERYTHROCUORIN (REDUCED, DEOXY)	M. STEIGEMANN, E. WEBER	3/79
1ECH	ERYTHROCUORIN (CYANO, MET)	M. STEIGEMANN, E. WEBER	3/79
1ECC	ERYTHROCUORIN (CARBONMONOXO)	M. STEIGEMANN, E. WEBER	3/79
2DBB	HEMOGLOBIN (HORSE, DEOXY)	M. PERUTE, G. FERMI	11/73
2MBB	HEMOGLOBIN (HORSE, AQUO MET)	R. LADNER, HEIDNER, PERUTE	2/77
1ECO	HEMOGLOBIN (HUMAN, CARBONMONOXO)	J. BALDWIN	8/79
2HCB	HEMOGLOBIN (HUMAN, CARBONMONOX, NRG REFND)	J. BALDWIN	8/79
2HBB	HEMOGLOBIN (HUMAN, DEOXY)	C. FERMI, M. PERUTE	3/84
3RBB	HEMOGLOBIN (HUMAN, DEOXY, SYMMETRY AVRGD)	G. FERMI, M. PERUTE	3/84
4RBB	HEMOGLOBIN (HUMAN, DEOXY, UNRESTRAINED)	G. FERMI, M. PERUTE	3/84
1RBO	HEMOGLOBIN (HUMAN, OXY)	B. SEAMAN	6/83
1FDH	HEMOGLOBIN (HUMAN, FETAL		



ISOMERASE

1X1A	D-XYLOSE ISOMERASE (ARTERIOBACTER)	D. BLOW	2/88 A
2X1A	D-XYLOSE ISOMERASE (S. ROBIGNOSUS)	H. CARRELL	5/88 A
3X1A	XYLOSE ISOMERASE (CLYVOCHROMOGENES)	G. FARBEC, G. PETRO	2/89
4X1A	D-XYLOSE ISOMERASE (SORTICOL)	K. HENRICK, C. COLLYER, D. BLOW	6/89
5X1A	D-XYLOSE ISOMERASE (XYLITOL)	K. HENRICK, C. COLLYER, D. BLOW	6/89
1PGI	GLUCOSE-6-PHOSPHATE ISOMERASE	H. MUIRHEAD	1/77 A
1T1M	TRIOSE PHOSPHATE ISOMERASE	I. WILSON, D. PHILLIPS	9/76
LIGASE (amide synthetase)			
2GL5	GLUTAMINE SYNTHETASE (S. TYPHIMURIUM)	D. EISENBERG ET AL.	5/89
LIGASE (thiolase)			
2T81	TYROSYL TRNA SYNTHETASE	P. BRICK, T. BEAT, D. BLOW	6/89
3T81	TYROSYL TRNA SYNTHETASE/TYROSINYL ADNYLTP	P. BRICK, T. BEAT, D. BLOW	6/89
4T81	TYROSYL TRNA SYNTHETASE MUTANT	P. BRICK, T. BEAT, D. BLOW	6/89
LYASE (amino)			
2CAB	CARBONIC ANHYDRASE B (HUMAN)	K. RANHAN	10/83
1CA2	CARBONIC ANHYDRASE II (HUMAN)	ERIKSSON, JONES, LILJAS	2/89
2CA2	CARBONIC ANHYDRASE II/SCN (HUMAN)	ERIKSSON, JONES, LILJAS	2/89
3CA2	CARBONIC ANHYDRASE/AMS	ERIKSSON, JONES, LILJAS	10/89
3CTS	CITRATE SYNTHASE (CHICKEN, COA, CITRATE)	REHINGTON, WIEGAND, HUBER	1/84
1C7S	CITRATE SYNTHASE (PIG)	REHINGTON, WIEGAND, HUBER	1/84
2C7S	CITRATE SYNTHASE (PIG, COA, CITRATE CMPLX)	REHINGTON, WIEGAND, HUBER	1/84
4C7S	CITRATE SYNTHASE (PIG, OXALACETATE CMPLX)	REHINGTON, WIEGAND, HUBER	1/84
2EML	ENGLASE (YEAST)	L. LESBODA, B. STEC	3/89 AR
1K2A	KDS ALDEHYDE	A. TULINSKY	8/78 A
LYASE (carbon-carbon)			
2RUB	RUBISCO (RHODOSPIRILLUM RUBRUM)	SCENEIDR, LINDQVIST, BRANDEN	11/88 A
LYASE (carbon-oxygen)			
5ACN	*ACONITASE (PIG, INACTIVE)	A. ROBBINS, C. D. STOUT	1/90
6ACN	*ACONITASE (PIG, ACTIVATED)	A. ROBBINS, C. D. STOUT	1/90
1MSY	TRYPTOPHAN SYNTHASE (S. TYPHIMURIUM)	D. DAVIES ET AL.	9/88
OXIDOREDUCTASE (acting on paired donors with incorporation of O)			
1PHH	P-HYDROXYBENZOATE HYDROXYLASE COMPLEX	H. SCHREUDER, J. DRENTH	11/87
OXIDOREDUCTASE (aldehyde(d)-NAD(a))			
1GD1	HOLO-GLD (BACILLUS STEAROTHEROPHILUS)	T. SKARZYNSKI, L. MONACOTT	6/87
2GD1	APO-GLD (BACILLUS STEAROTHEROPHILUS)	T. SKARZYNSKI, L. MONACOTT	6/89
3GD1	GLYCERALDEHYDE-3-P-DEHYDROGENASE (HUMAN)	B. WATSON, J. CAMPBELL	6/83
1GD2	GLYCERALDEHYDE-3-P-DEHYDROGENASE (LOBSTR)	M. ROSSMANN	7/75
4GD2	APO-GLYCERALDEHYDE-3-P-DEHYDROGENASE (LBSTR)	GRIFITZ, SONG, ROSSMANN	1/88 R
OXIDOREDUCTASE (CH-NH(d)-NAD(+) or NADP(+) (a))			
8DFR	DIHYDROFOLATE REDUCTASE (CHICKEN LIVER)	J. KRAUT ET AL.	5/89
4DFR	DIHYDROFOLATE REDUCTASE (E. COLI)	J. BOLIN, D. MATTHEWS, J. KRAUT	6/82
5DFR	*APO-DIHYDROFOLATE REDUCTASE (E. COLI)	J. KRAUT	10/88
6DFR	*DIHYDROFOLATE REDUCTASE (E. COLI)/NADP	J. KRAUT	10/88
7DFR	*DIHYDROFOLATE REDUCTASE (E. COLI)/NADP	J. KRAUT	10/88
1DBF	*DIHYDROFOLATE REDUCTASE (HUMAN)	J. DAVIES, J. KRAUT	10/89
2DBF	*DIHYDROFOLATE REDUCTASE/5-DEAZAFOLATE	J. DAVIES, J. KRAUT	10/89
3DFR	DIHYDROFOLATE REDUCTASE (L. CASEI)	J. BOLIN, D. MATTHEWS, J. KRAUT	6/82
OXIDOREDUCTASE (NADPH(d)-dinucleotide)			
3GR5	GLUTATHIONE REDUCTASE (OXIDIZED, HUMAN)	G. SCHULZ, A. KARPLUS	2/88 R
1SRX	THIOREDOXIN (E. COLI, OXIDIZED)	B.-O. SODERBERG	5/76 A
OXIDOREDUCTASE (H2O(a))			
7CAT	CATALASE (BEEF LIVER)	I. FITA, M. ROSSMANN	11/84
8CAT	CATALASE (BEEF LIVER)	I. FITA, M. ROSSMANN	11/84
9CAT	CATALASE (PENICILLIUM VITALE)	B. VAINSTEIN ET AL.	2/83 B
2CYP	CYTOCHROME C PEROXIDASE (YEAST)	B. FINZEL, T. POULOS, J. KRAUT	8/85
1GP1	GLUTATHIONE PEROXIDASE (BOVINE)	O. EFF, R. LADENSTEIN	6/85
OXIDOREDUCTASE (CHOH(d)-NAD(a))			
4MDH	MALATE DEHYDROGENASE (PORCINE)	J. BIRKHOFF, L. BANASAK	4/89 R
1LDB	AP0-L-LDH (BACILLUS STEAROTHEROPHILUS)	K. PIONTEK, M. ROSSMANN	3/89
1LDB	L-LDH/NAD/FRUCTOSE-1,6-BISPHOSPHATE	K. PIONTEK, M. ROSSMANN	3/89
3LDB	LACTATE DEHYDROGENASE/NAD/PYRUVATE (DOG)	M. ROSSMANN	11/74
1LDB	LACTATE DEHYDROGENASE/NAD/OKAMATE (DOG)	J. GRITZ, M. ROSSMANN	11/87
6LDB	AP0-M4-LACTATE DEHYDROGENASE (DOG)	C. ABAD-SAPATERO, M. ROSSMANN	11/87
8LDB	AP0-M4-LACTATE DEHYDROGENASE (CITRAT)	C. ABAD-SAPATERO, M. ROSSMANN	1/88
1LDC	LACTATE DEHYDROGENASE (L. CASEI)	M. BUEHNER, B. HECHT, R. BENNELL	1/88
2LDC	LACTATE DEHYDROGENASE (HUMAN)	M. ROSSMANN	11/87
5LDB	LACTATE DEHYDROGENASE/S-LAC/NAD (PIG)	O. GRUB, ROSSMANN	10/80
8ADB	ALCOHOL DEHYDROGENASE (APO)	T. A. JONES, B. EKUND	4/89 R
5ADB	ALCOHOL DEHYDROGENASE (APO)/ADP-RIBOSE	B. EKUND, T. A. JONES	1/84
6ADB	ALCOHOL DEHYDROGENASE (BOLO)/NAD/DMSO	B. EKUND	1/84
7ADB	ALCOHOL DEHYDROGENASE (ISONICOTINIMIDYLATED)	B. FLAPP, B. EKUND	1/84
OXIDOREDUCTASE (oxygen(A))			
1GOK	GLYCOLATE OXIDASE (SPINACH)	Y. LINDQVIST	6/89
OXIDOREDUCTASE (oxygenase)			
2CPC	CYTOCHROME P450CM (PSEUDOMONAS PUTIDA)	T. POULOS, B. FINZEL, A. HOWARD	4/87
3CPC	CYTOCHROME P450CM/CAMP BOR MONOOXYGENASE	R. RAAG, T. POULOS	6/89
OXIDOREDUCTASE (aspartate transferase)			
2500	SUPEROXIDE DISMUTASE	J. RICHARDSON, D. RICHARDSON	3/80
TRANSFERASE (acyltransferase)			
1CLA	*CHLORAMPHENICOL ACETYLTRANSFERASE (S148A)	M. GIBBS, A. LESLIE	10/89
2CLA	*CHLORAMPHENICOL ACETYLTRANSFERASE (D199N)	M. GIBBS, P. MOODY, A. LESLIE	4/90
TRANSFERASE (aminotransferase)			
1AAT	CYTOSOLIC ASPARTATE AMINOTRANSFERASE	HARUTUNYAN, MALASEKICHA	4/82 A
2AAT	ASPARTATE AMINOTRANSFERASE COMPLEX	SMITH, ALMO, TONEY, RICE	5/89
TRANSFERASE (carbamoyl transferase)			
2ATC	ASPARTATE CARBAMOYLTRANSFERASE	W. LIPSCOMB	3/82
4ATC	ASPARTATE CARBAMOYLTRANSFERASE	W. LIPSCOMB	4/84
7ATC	ASPARTATE CARBAMOYLTRANSFERASE/CTP	R. HONATKO, W. LIPSCOMB	5/87
TRANSFERASE (dehydrogenase)			
1DF1	DNA POLYMERASE I (KLENOW FRAGMENT)	L. SEESE, D. OLLIS, T. STEITZ	8/87 A
TRANSFERASE (phosphotransferase)			
JADK	ADENYLATE KINASE (PORCINE)	G. SCHULZ	11/87
1BKX	BEKOKINASE A - GLUCOSE COMPLEX (YEAST)	W. BENNETT JR., T. STEITZ	12/80
2YHX	BEKOKINASE (YEAST) FORM BIII	STEITZ, ANDERSON, STENKAMP	3/78
3YFX	PHOSPHOFRUCTOKINASE (B. STEAROTHEROPHILUS)	P. EVANS, P. HUDSON	1/88
4YFX	PHOSPHOFRUCTOKINASE (B. ST.) - P6P-ADP/PG	P. EVANS, P. HUDSON	1/88
5YFX	PHOSPHOFRUCTOKINASE (B. ST.) T-STATE	EVANS, FARRANTS, LAWRENCE	1/88 A
1YFX	PHOSPHOFRUCTOKINASE (E. COLI) - P6P-ADP/PG	Y. SHIRAKI, HARA, P. EVANS	1/88
2YFX	PHOSPHOFRUCTOKINASE (E. COLI)	M. RYHNIEWSKI, P. EVANS	1/88
3YFX	PHOSPHOGLYCERATE KINASE (HORSE)	P. EVANS, C. BLAKE	9/76 B
1YFX	PHOSPHOGLYCERATE KINASE (YEAST)	B. WATSON	4/82
3YFX	PHOSPHOGLYCERATE MUTASE	H. MUIRHEAD	1/80
1YFX	PYRUVATE KINASE (CAT)		
TRANSFERASE (nucleotransferase)			
1RBD	RHODANSE	M. ECL	12/77
TRANSFER RIBONUCLEIC ACID			
2TRA	TRANSFER RNA (YEAST ASP, FORM A)	E. WESTROF, P. DUMAS, D. HORAS	11/87
3TRA	TRANSFER RNA (YEAST ASP, FORM B)	E. WESTROF, P. DUMAS, D. HORAS	11/87
4TRA	TRANSFER RNA (YEAST, PHE)	A. JACK, J. LADNER, A. KLUG	4/78
6TRA	TRANSFER RNA (YEAST, PHE)	S. -B. KIM ET AL.	11/78
1TRA	TRANSFER RNA (YEAST, PHE)	M. SUNDARALINGAM ET AL.	5/86
1TR1	TRANSFER RNA (YEAST, PHE, PB, PH 7.4)	DEMAN, BROWN, HINGERTY, KLUG	12/86
1TR2	TRANSFER RNA (YEAST, PHE, PB, PH 5.0)	J. DEMAN, R. BROWN, A. KLUG	8/86
4TRA	TRANSFER RNA (YEAST PHE, ORTHORHOMBIC)	E. WESTROF, P. DUMAS, D. HORAS	11/87
DEOXYRIBONUCLEIC ACID			
1ANA	DNA (A, 5' PRIME), D-1-ODD-CGGG-3' (PRIME)	B. CONNER, R. DICKERSON	6/82
2ANA	DNA (A, GCGGCCCG, SYNTHETIC)	M. MCCALL, T. BROWN, O. KENNARD	8/85
3ANA	DNA (A, GCGGCCCG, SYNTHETIC)	U. REINEMANN, H. LAUBLE	7/88
9DNA	DNA (A, GCGGCCCG, SYNTHETIC)	U. REINEMANN	7/87
1BNA	DNA (B, CCGCAATTCCGG, SYNTHETIC, 290 K)	H. DREM, R. DICKERSON	1/81
2BNA	DNA (B, CCGCAATTCCGG, SYNTHETIC, 16 K)	H. DREM, R. DICKERSON	11/81
3BNA	DNA (B, 3'-BR-CGGCAATTCCGG, SYNTH, 20 DEG C)	KOPKA, FRATINI, DICKERSON	2/82
4BNA	DNA (B, 3'-BR-CGGCAATTCCGG, SYNTH, 7 DEG C)	KOPKA, FRATINI, DICKERSON	2/82
5BNA	DNA (B, CCGCAATTCCGG, SYNTH, 7 DEG C)	MING, PUIRA, DREM, DICKERSON	8/83
6BNA	DNA (B, 3'-BR-CGGCAATTCCGG, SYNTH)/NETROPSIN	KOPKA, R. DICKERSON	8/84
7BNA	DNA (B, CCGCAATTCCGG, ANISO TEMP FACTORS)	HOLBROOK, DICKERSON, KIM	1/85

8BNA	DNA (CGCCAAATTCGG, SYNTHETIC)/HOECHST 33258	PUIRA, GRIESKOWIAK, DICKERSON	8/86
12NA	DNA (S (PRIME), CGCG, HIGH-SALT, SYNTHETIC)	B. DREM, R. DICKERSON	1/81
1DN4	DNA (1-BR-CG-BR-CG-BR-CG, SYNTHETIC, 18 DEG C)	J. MORAS ET AL.	12/86
1DN5	DNA (1-BR-CG-BR-CG-BR-CG, SYNTHETIC, 37 DEG C)	J. MORAS ET AL.	12/86
1DN6	DNA (CGGATCGG, SYNTHETIC)	MCCALL, BROWN, HUNTER, KENNEDY	5/87
1DN8	DNA (CGTACGTACG, SYNTHETIC)	M. SUNDARALINGAM	5/87
2DRD	DNA (CGCAAAATTCGG) - DISTAMYCIN COMPLEX	M. COLL, A. RICH	8/88
1DN8	DNA (CGGATCGG) - HOECHST 33258 COMPLEX	A. WANG ET AL.	2/88
3DN8	DNA (CGGATCGG)	G. PRIVE, R. DICKERSON	3/88
1D16	DNA (CGGCGCTTTTCGGCG)	CHESTNUT, ADRIANA, DICKERSON	4/88
1DCC	DNA (CGGCGG)	C. FREDERICK, A. WANG ET AL.	8/88
2DCC	DNA (CGGCGG)/SPERMINE	A. WANG, A. RICH ET AL.	8/88
4DN8	DNA (CGGCAATTCCGG)	C. FREDERICK, A. RICH ET AL.	8/88
1DNE	DNA (CGCGAATTCGG)/NETROPSIN	M. COLL ET AL.	9/88
1BD1	DNA (CGAGCGCTCG)	U. REINEMANN	8/89
1DN5	DNA (GTGTACAC)/SPERMINE	M. SUNDARALINGAM	2/89
1DN9	DNA (CGCATATATCGG)	C. YOON, R. DICKERSON	4/89
5ANA	DNA (GTACTAC)	F. TAKUSAGAWA	8/89
POLYSACCHARIDES			
1AGA	AGAROSE	S. ARNOTT	5/78
1CAF	CAPSULAR POLYSACCHARIDE (E. COLI H41)	S. ARNOTT	5/78
1C4S	CHONDROITIN-4-SULFATE	S. ARNOTT	5/78
2C4S	CHONDROITIN-4-SULFATE (CA SALT)	S. ARNOTT	5/78
1BYA	HYALURONIC ACID (NA SALT, 3-FOLD HELIX)	S. ARNOTT	11/77
2BYA	HYALURONIC ACID (NA SALT, 4-FOLD HELIX)	S. ARNOTT	5/78
3BYA	HYALURONIC ACID (NA SALT, 2-FOLD HELIX)	S. ARNOTT	5/78
4BYA	HYALURONIC ACID (CA SALT, 3-FOLD HELIX)	S. ARNOTT	5/78
1CAR	CARRAGEENAN	S. ARNOTT	5/78
1KZ5	KERATAN SULFATE	S. ARNOTT	5/78

MODEL STRUCTURES

2CLN	CALMODULIN/TRIFLUOPERAZINE MODEL	N. STRYNADKA, M. JAMES	2/88
CONTRACTILE SYSTEM PROTEIN			
1TNC	TROPONIN (CA-BINDING COMPONENT) MODEL	R. KRETSINGER, C. D. BARRY	6/80 A
DNA BINDING			
2CAP	CATABOLITE GENE ACTIVATOR PTH/DNA MODEL	I. WEBER, T. STEITZ	3/86 A
HORMONE			
1GF1	INSULIN-LIKE GROWTH FACTOR I MODEL	BLUNDELL, BEDARKAR, HUMBEL	12/82
1GF2	INSULIN-LIKE GROWTH FACTOR II MODEL	BLUNDELL, BEDARKAR, HUMBEL	12/82
1RLX	RELAXIN (CONFORMATION A, UNREFINED) MODEL	A. EVANS, A. NORTH	3/78
2RLX	RELAXIN (CONFORMATION B, UNREFINED) MODEL	A. EVANS, A. NORTH	3/78
3RLX	RELAXIN (CONFORMATION A, REFINED) MODEL	A. EVANS, A. NORTH	3/78
4RLX	RELAXIN (CONFORMATION B, REFINED) MODEL	A. EVANS, A. NORTH	3/78
IMMUNOGLOBULIN			
1IGF	IMMUNOGLOBULIN E (FC FRAGMENT) MODEL	E. PADLAN, D. DAVIES	1/85
1FVB	IMMUNOGLOBULIN FV B1912 MODEL	E. KABAT, E. PADLAN	4/88
2FVB	IMMUNOGLOBULIN FV B1912 MODEL	E. KABAT, E. PADLAN	4/88
1HFM	HYHEL-10 ANTIBODY FV REGION MODEL	C. MAHART	10/87
1FVM	IMMUNOGLOBULIN FV M3129 MODEL	E. KABAT, E. PADLAN	4/88
2FVM	IMMUNOGLOBULIN FV M3129 MODEL	E. KABAT, E. PADLAN	4/88
COMPLEX (immunoglobulin-miigen)			
2HFH	HYHEL-10/LYSOZYME COMPLEX MODEL	C. MAHART	10/87
LIPID-ASSOCIATED PROTEIN			
1MLP	MUREIN LIPOPROTEIN MODEL	A. MCLACHLAN	8/78
HYDROLASE (acid protease)			
1BVF	HIV-1 PROTEASE MODEL	I. WEBER	3/89
HYDROLASE (metalloproteinase)			
7ZNY	ZINC METALLOPROTEIN SUBSTRATE (TRANSITION) MODEL	B. MATTHEWS ET AL.	6/87
TRANSFERASE (phosphotransferase)			
1APK	CAMP-DEPENDENT PROTEIN KINASE (TA) MODEL	I. WEBER	3/89
1BPX	CAMP-DEPENDENT PROTEIN KINASE (TB) MODEL	I. WEBER	3/89
2APK	CAMP-DEPENDENT PROTEIN KINASE (IA) MODEL	I. WEBER	3/89
2BPX	CAMP-DEPENDENT PROTEIN KINASE (IB) MODEL	I. WEBER	3/89
DEOXYRIBONUCLEIC ACID			
1DNN	DNA (ATCGCCAAAG...) MODEL	J. SUSSMAN, E. TRIFONOV	11/82
1DN7	DNA (POLY (DC) - POLY (GC), SYNTHETIC) MODEL	H. MCCALL, T. BROWN, O. KENNARD	5/87
2XNA	DNA (2-1, CCGCGG, SYNTHETIC) MODEL	A. RICH	2/81
3XNA	DNA (2-11, CCGCGG, SYNTHETIC) MODEL	A. RICH	2/81

\* NEW OR REPLACEMENT ENTRY SINCE APR-1990 NEWSLETTER

STATUS CODES

BLANK	STANDARD ENTRY AVAILABLE FOR DISTRIBUTION
A	ALPHA CARBON ATOMS ONLY
B	BACKBONE ONLY
R	RECENT (1988-1990) REPLACEMENT FOR AN OUT-OF-DATE PARAMETER SET

TABLE 6. COORDINATE AND STRUCTURE FACTOR ENTRIES IN PREPARATION

IDENT CODE	MOLECULE	DEPOSITOR(S)	DATE/STATUS
1AAA	ACID ALPHA-AMYLASE (ASPERGILLUS NIGER)	G. DOBSON ET AL.	3/90 AH
4APR	ACID PROTEASE (R. PEPSIN)/INHIBITOR	K. SUGUNA, D. DAVIES	8/89 F
5APR	ACID PROTEASE (R. PEPSIN)/INHIBITOR	K. SUGUNA, D. DAVIES	8/89 F
6APR	ACID PROTEASE (R. PEPSIN)/INHIBITOR	K. SUGUNA, D. DAVIES	8/89 F
*AC1	*ACEL CARIER PROTEIN (NMR, 2 MODELS)	J. PRESTEGARD, Y. KIM	7/90 P
1AK3	ADENYLATE KINASE (YEAST) 3	C. WRIGHT	4/90 RF
7WGA	WHEAT GERM AGGLUTININ (ISOLECTIN 1)	C. WRIGHT	4/90 RF
2WGA	WHEAT GERM AGGLUTININ (ISOLECTIN 2)	C. WRIGHT	4/90 RF
1WGC	WHEAT GERM AGGLUTININ (ISOLECTIN 1)/HLA	C. WRIGHT	4/90 P
2WGC	WHEAT GERM AGGLUTININ (ISOLECTIN 2)/HLA	C. WRIGHT	4/90 P
1AL1	*ALPHA-1 (SYNTHETIC PEPTIDE)	C. RILL ET AL.	7/90 P
7AP1	ALPHA 1-AMITRYPSIN (MODIFIED, TETRAGONAL)	R. H	



R1B8MR	*METALLOTHIONEIN (HUMAN) (NMR)	K.WUETHERICH ET AL.	5/90 M
R1B8SR	*METALLOTHIONEIN (RABBIT) (NMR)	K.WUETHERICH ET AL.	5/90 M
R1B8TR	*METALLOTHIONEIN (RAT) (NMR)	K.WUETHERICH ET AL.	5/90 M
R1B1MR	*NEUROTOXIN 1 (NMR)	R.FOGR, R.NORTON	5/90 M
R1B5MR	*PROTEINASE INHIBITOR IIA (NMR)	K.WUETHERICH ET AL.	5/90 M
R2A1MR	*TRIDAMISTAT (NMR, 9 STRUCTURES)	K.WUETHERICH ET AL.	5/89 M
R1A2MR	*TOXIN A (SEA ANEMONE) (NMR)	K.WUETHERICH ET AL.	5/90 M
R1E1MR	*TRYP SIN INHIBITOR EETI II (NMR)	B.CASTRO ET AL.	1/90 M
R1A9MR	*SINC FINGER (NMR)	P. WRIGHT	9/89 M
R3N2MR	*SINC FINGER (NMR)	G.CLORE, A.GRONENBORN	7/90 M

\* NEW OR REPLACEMENT ENTRY SINCE APR-1990 NEWSLETTER

STATUS CODES

A	ALPHA CARBON ATOMS ONLY
B	BACARBON ONLY
E	HOLD FOR DELAYED RELEASE AS REQUESTED BY DEPOSITOR
M	NMR RESTRAINTS AND OTHER NMR EXPERIMENTAL DATA
N	NEW ENTRY AWAITING APPROVAL BY DEPOSITOR
P	IN PREPARATION
R	REPLACEMENT FOR ENTRY IN TABLE 5
S	STRUCTURE FACTORS

TABLE 7. PROTEIN DATA BANK, BIBLIOGRAPHIC ENTRIES (NO COORDINATES)

15-JUL-1990

OEAP	ACID PROTEINASE (ENDOTHA PARASITICA)
OACD	ACYL-CoA DEHYDROGENASE
OAKA	ADENYLATE KINASE-1, P5-DI(ADENOSINE-5(PRIME)-)PENTAPHOSPHATE
OAKN	ADENYLATE KINASE
OMG1	AGGLUTININ (WHEAT GERM, ISOLECTIN 1)
OADL	ALDOLASE A
OAFP	ANTIFERREZ POLYPEPTIDE (AFP) (BPLC-6)
OAF1	APOFERRITIN (HORSE)
OMAA	MITOCHONDRIAL ASPARTATE AMINOTRANSFERASE
OACI	ASPARATE CARBAMOYLTRANSFERASE
OAC5	ASPARATE CARBAMOYLTRANSFERASE-CARBAMOYL PROSPHATE-SUCCINATE COMPLEX
ORNB	BARNASE (BACILLUS AMYLOLIQUEFACTENS)
OBST	ALPHA-BUNGAROTOXIN
OCPT	CALCIUM-BINDING PARVALBUMIN - TERBIUM COMPLEX
OCDI	CALOTROPIN DI (CALOTROPIS GIGANTEA)
OCPS	CARBOXYPEPTIDASE A (ALPHA) /GLYCYL-L-TYROSINE (-9 DEGREES C)
OCDT	CARDIOTOXIN VIIA
OCFN	CATABOLITE GENE ACTIVATOR PROTEIN 91
OZGP	D-ALANYL-D-ALANINE PEPTIDASE (SH2+ G PEPTIDASE)
OCGB	GAMMA-CRYMOTRYP SIN/3-BENZYL-6-CHLORO-2-PYRONE
OCCL	GAMMA-CRYMOTRYP SIN - INACTIVATOR COMPLEX
OCOL	COLICIN A (C-TERMINAL DOMAIN)
OCN2	CONCANAVALIN A (DEMETALLISED)
OCYS	CYSTATIN
OCCL	CYTOCHROME C PEROXIDASE COMPOUND I
O5C1	CYTOCHROME C555 (CHLOROBIMUM THIOSULFATOPHILUM)
OCFF	CYTOCHROME P450CAM (SUBSTRATE-FREE)
ODN1	DEOXYRIBONUCLEASE I (DNASE I)
OC3A	DES-ARG77-C3A ANAPHYLATOXIN
ODRF	D15HYDROFOLATE REDUCTASE-FOLATE COMPLEX
ODF5	D57 D15HYDROFOLATE REDUCTASE (ESCHERICHIA COLI)
ODH2	DNA (CGCATACC, SYNTHETIC)
ODN3	DNA (CGCGAATACC, SYNTHETIC)
ODAC	DNA (CCSTACCC, SYNTHETIC) COMPLEX WITH TRIOSTIN
ODN1	DNA (GGGCTCCC, SYNTHETIC)
OAN8	DNA (GGTATACC)
OANB	DNA (GG+UA+UACC)
OCTC	DNA (A, GGGCTCCC, SYNTHETIC)
OEPC	ELASTASE-(THR-PRO-NVAL-NHELU-TYR-THR) COMPLEX AT 19 DEGREES KELVIN
OEVC	ELASTASE-MEO-SUC-ALA-ALA-PRO-VAL CHLOROMETHYL KETONE
OE5C	ELASTASE COMPLEX WITH TWO MOLECULES OF ACE-ALA-PRO-ALA
OE5I	ELASTASE COMPLEX (PIG)
OEKA	EKOTOXIN A (PSEUDOMONAS AERUGINOSA)
OFDL	FAB (IGG D1.3) COMPLEX WITH LYSOZYME
OFK1	FERREDOXIN I (AFRANOTHECE SACRUM)
OFK1	FERREDOXIN I
OFCE	FLAVOCYTOCHROME B2
OFK3	FLAVODOXIN (OXIDISED, ANACYSTIS NIDULANS)
OFK2	FLAVODOXIN (REDUCED, CLOSTRIDIUM MP)
OCBP	D-GALACTOSE-BINDING PROTEIN (ESCHERICHIA COLI)
OGLS	GLUTAMINE SYNTHETASE (SALMONELLA TYPHIMURIUM)
OBG1	HAEMAGGLUTININ (MUTANT D112G)-SIALIC ACID COMPLEX
OBG2	HAEMAGGLUTININ (MUTANT G146G)
OBG3	HAEMAGGLUTININ (MUTANT L226G)
OBG4	HAEMAGGLUTININ (MUTANT L226G)-SIALIC ACID COMPLEX
ORRS	HEAVY RIBOFLAVIN SYNTHASE
ORP1	HEMOCCYANIN (PANTULIRUS INTERRUPtus)
ODCB	HEMOGLOBIN (COBALT, DEOXY)
ORBG	HEMOGLOBIN (GLYCERA DIBRANCHIATA)
ORBT	HEMOGLOBIN (T STATE, HUMAN)
ORU1	IMMUNOGLOBULIN, BENGE-JONES FRAGMENT (KAPPA) AU
ORU2	IMMUNOGLOBULIN, BENGE-JONES FRAGMENT (V-MONOMER, KAPPA) ROY
O1G1	IMMUNOGLOBULIN G1 (KAPPA) DOB
O1H4	INSULIN (HUMAN)
O1H1	INSULIN (PORCINE)
O1H2	INSULIN (PORCINE)
O1H3	DESPENTAPEPTIDE INSULIN (BEEF)
O2IN	INSULIN (Zn-INSULIN SPHECOL)
O1I2	INTERLEUKIN-2
ORIF	INTESTINAL FATTY ACID-BINDING PROTEIN
O1PC	LIPOVITELLIN-PROSVITIN COMPLEX
OLZG	LYSOZYME G (GOOSE-TYPE)
OGLM	LYSOZYME (EMDEN GOOSE)
OLB5	LYSOZYME (HEN EGG-WHITE, NEUTRON STUDY)

OLB5	LYSOZYME (HEN EGG-WHITE, DEUTERATED ETANOL)
OLB7	LYSOZYME (HEN EGG-WHITE, HIGH-TEMPERATURE)
OLB6	LYSOZYME (STREPTOCOCYCES ERYTHRAEUS)
OTEL	LYSOZYME (TORTOISE EGG-WHITE)
OB2H	BETA2-MICROGLOBULIN
OM4D	MITOCHONDRIAL MALATE DEHYDROGENASE (PORCINE)
OMLE	MUCONATE LACTONISING ENZYME (MUCONATE CYCLOISOMERASE I*)
OMB3	MYOGLOBIN (SPERM WHALE, MET, TEMPERATURE STUDIES)
OMB3	MYOGLOBIN (SPERM WHALE, MET, NEUTRON STUDY)
OPEC	PAPAIN-2-6 COMPLEX
OGCL	PHOSPHOGLUCOSYLTRANSFERASE (RABBIT)
OPFA	PHOSPHORYLASE A (RABBIT)
OPB1	PHOSPHORYLASE B (RABBIT)
OCPC	C-PHYCOCYANIN (AGNEHELLUM QUADRUPPLICATUM)
OPAL	PIKE 4 (DOT) 10 PARVALBUMIN BETA
OPFB	PLATELET FACTOR 4
OPF1	PROTHROMBIN FRAGMENT 1 (BOVINE)
ORCR	REACTION CENTER
ORX5	RELAXIN (PORCINE) MODEL
OREN	RENIN
ORSA	RIBONUCLEASE A (BOVINE)
ORIA	RIBONUCLEASE A (BOVINE) COMPLEX WITH DNA (AAAA)
ORBS	RIBONUCLEASE (BOVINE SEMINAL)
ORBI	RIBONUCLEASE BI (BINASE)
ORST	RIBONUCLEASE ST (STREPTOCOCYCES ERYTHREUS)
ORPL	RIBOSOMAL PROTEIN L30
ORIC	RICIN (ACAI)
OC5B	STREPTAVIDIN-BIOTIN COMPLEX
OST1	SUBTILISIN (BAS)
OST2	SUBTILISIN (BASOX) (PEROXIDE-OXIDISED)
OSB5	SULFATE-BINDING PROTEIN
OSDE	FE-SUPEROXIDE DISMUTASE (ESCHERICHIA COLI)
OSDP	FE-SUPEROXIDE DISMUTASE (PSEUDOMONAS OVALIS)
OSDM	MN-SUPEROXIDE DISMUTASE (THERMUS THERMOPHILUS)
OTMT	THERMITASE
OTEC	THERMITASE-EGLIN C COMPLEX
OZLL	THERMOLYSIN (BACILLUS THERMOPROTEOLYTICUS) COMPLEX WITH P-LEU-NR8
OT4	THIORDOXIN (BACTERIOPHAGE T4)
OFMT	INITIATOR TRANSFER RNA (E. COLI, F/HET)
OTR1	TRANSFER RNA (YEAST, PHE)
OMTS	METHIONYL TRANSFER RNA SYNTHETASE
OTFD	TRANSFERIN (DIFERAC)
OTMD	TRIMETHYLAMINE DEHYDROGENASE
OYPI	TRIOSE PHOSPHATE ISOMERASE (SACCCHAROMYCES CEREVISIAE)
OTRO	TRP REPRESSOR-OPERATOR COMPLEX
OTTI	BETA TRYP SIN-TRYP SIN INHIBITOR I
OAD2	ADENOVIRUS TYPE 2 HEXON (AD2)
OTMV	VIRUS PROTEIN DISK (TOBACCO MOSAIC)

\* NEW OR REPLACEMENT ENTRY SINCE APR-1990 NEWSLETTER

TABLE 8. CORRECTIONS TO COORDINATE ENTRIES AND PROGRAMS

15-JUL-1990

CORRECTIONS TO ENTRIES MAY BE OBTAINED IN ONE OF TWO WAYS -

A. ORDER CORROFI. THERE IS NO CHARGE FOR THIS MICROFICHE WHICH CONTAINS A LISTING OF ALL CORRECTIONS APPLIED IN THE LAST THREE MONTHS.

B. ORDER A NEW COPY OF DATAPRT.

THE FOLLOWING DATA SETS HAVE HAD CORRECTIONS APPLIED. PLEASE CONSULT A COPY OF THE PROTEIN DATA BANK ATOMIC COORDINATE AND BIBLIOGRAPHIC ENTRY FORMAT DESCRIPTION FOR A FULL DESCRIPTION OF REVDT RECORDS.

REVDT	6	15-JUL-90	3SGBE	1	HEADER
REVDT	3	15-JUL-90	1FB0B	3	OBSLTE
REVDT	2	15-JUL-90	1DNEA	3	ATOM
REVDT	4	15-JUL-90	1ETUC	1	SET FORMUL
REVDT	3	15-JUL-90	1BLAB	1	REMARK
REVDT	3	15-JUL-90	1PFBX	1	REMARK
REVDT	2	15-JUL-90	1R0GA	1	REMARK
REVDT	2	15-JUL-90	1RMA	1	REMARK
REVDT	3	15-JUL-90	2PFBX	1	JRNL
REVDT	2	15-JUL-90	2R04A	1	REMARK
REVDT	2	15-JUL-90	2R06A	1	REMARK
REVDT	2	15-JUL-90	2R07A	1	REMARK
REVDT	2	15-JUL-90	2RM2A	1	REMARK
REVDT	2	15-JUL-90	2RMOA	1	REMARK
REVDT	2	15-JUL-90	2RRIA	1	REMARK
REVDT	2	15-JUL-90	2RS1A	1	REMARK
REVDT	2	15-JUL-90	2RS3A	1	REMARK
REVDT	2	15-JUL-90	2RS5A	1	REMARK
REVDT	3	15-JUL-90	2PFBX	1	REMARK
REVDT	3	15-JUL-90	4PFBX	1	REMARK
REVDT	5	15-JUL-90	4REVD	1	REMARK
REVDT	3	15-JUL-90	5PFBX	1	REMARK
REVDT	2	15-JUL-90	2RUBA	1	HEADER
REVDT	2	15-JUL-90	2PEPA	3	OBSLTE
REVDT	2	15-JUL-90	2PLVA	1	REMARK

THE FOLLOWING DATA SETS HAVE BEEN REPLACED

		OLD ENTRY	NEW ENTRY
OBSLTE	15-JUL-90	1FBJ	2FBJ
OBSLTE	15-JUL-90	2PEP	5PEP

Name	Date
Address	Telephone
	Electronic Mail
	FAX Number

Check or written purchase order must be made payable to Brookhaven National Laboratory (see Entering an Order)

**Items to be ordered (prices are valid until September 30, 1990)**

<b>MAGNETIC TAPE</b> items from Table 1:					
DATAPRTP (includes all coordinate entries)					
	6250 cpi	1600 cpi	TK50	60 Mbyte	150 Mbyte
VAX/VMS BACKUP	<input type="checkbox"/> \$294	<input type="checkbox"/> \$410	<input type="checkbox"/> \$380		
VAX/VMS COPY	<input type="checkbox"/> \$333	<input type="checkbox"/> \$410	<input type="checkbox"/> \$380		
Unlabelled ASCII	<input type="checkbox"/> \$333	<input type="checkbox"/> \$410			
Unlabelled EBCDIC	<input type="checkbox"/> \$333	<input type="checkbox"/> \$410			
IRIS cartridge TAR tape				<input type="checkbox"/> \$391	<input type="checkbox"/> \$323
PDBPGMTP					
VAX/VMS COPY	<input type="checkbox"/> \$294	<input type="checkbox"/> \$294	<input type="checkbox"/> \$317		
STRUCTURE FACTOR TAPES each tape ordered costs \$294					
<input type="checkbox"/> NONST1TP	<input type="checkbox"/> NONST2TP	<input type="checkbox"/> NONST3TP	<input type="checkbox"/> NONST4TP		
<input type="checkbox"/> NONST5TP	<input type="checkbox"/> NONST6TP	<input type="checkbox"/> NONST7TP	<input type="checkbox"/> NONST8TP		
Choose one format for STRUCTURE FACTOR tapes					
Unlabelled ASCII	<input type="checkbox"/> 6250 cpi	<input type="checkbox"/> 1600 cpi			
Unlabelled EBCDIC	<input type="checkbox"/> 6250 cpi	<input type="checkbox"/> 1600 cpi			
<b>MICROFICHE</b> items (from Table 2). Each microfiche item costs \$380, postage included. Correction fiche are free.					
List Items requested:					
<b>PRINTED LISTINGS</b> . Each entry costs \$85, postage included.					
IDENT Code(s) (from Table 5) requested:					

Please total all the charges applicable to this order. All prices are expected to be valid through September 30, 1990. After that date please confirm prices.

Bank charges (\$40 if check not in U.S. dollars drawn on U.S. bank, otherwise no charge)	
Foreign air mail charges (charge of \$19 per tape item mailed outside U.S. and Canada)	
Magnetic tape charges:	
Microfiche charges:	
Printed listing charges:	
<b>TOTAL COST:</b>	

(continued on the next page)



DOCUMENTATION desired (no charge)

- Introduction to the Protein Data Bank (January 1990)
- Latest Newsletter
- Atomic Coordinate and Bibliographic Entry Format Description for DATAPRTP and DATAPRFI (March 1989)
- Current DATAPRTP Directory
- Sources of Visual Aids for Macromolecular Structure (January 1989)
- Non-Standard Entries (Structure Factors ) Format Description
- Data Deposition Form

SPECIAL ORDER items (described in Table 1) requested. Please inquire at Brookhaven for availability and price.

YEAR89TP

CONNECTP

DSTNCETP

PART90TP

DGPLOTPP

FISIPLTP

BENDERTP

DIHDRLTP

PHIPSITP

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**ENTERING AN ORDER:**

- Brookhaven **requires the following before service is provided**

\_\_ Check or purchase order payable to **BROOKHAVEN NATIONAL LABORATORY**

\_\_ Completed Order Form

\_\_ Self Addressed Label

If using facsimile, the original order form and purchase order or check must also be sent to Brookhaven by mail.

- Please send the required items to

BROOKHAVEN NATIONAL LABORATORY

Chemistry Department - Bldg. 555

Ms. F. C. Bernstein

Upton, New York 11973 USA

Telephone: 516-282-4382

Facsimile: 516-282-5815

To ensure proper handling, it is advisable for users to send an additional copy of this order form directly to Brookhaven; experience shows that purchasing departments often do not forward a copy of the order form.

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