

Altogether, 31 new atomic coordinate entries are available with the current release (see Table 5), including the structure of the photosynthetic reaction center (1PRC) from *R. viridis*, the work of 1988 Nobel Laureates Hans Deisenhofer, Robert Huber and Hartmut Michel. The past year has seen the addition of approximately 100 new entries to the PDB.

The new DATAPRTP release includes the entry 1BDS, the first structure derived from solution NMR measurements to be distributed by the PDB. Other such entries that have been deposited are currently being processed (see Table 6). To accommodate differences between these data and those derived from diffraction measurements, a number of new PDB record types will be instituted. (Details will be provided in a subsequent revision of the Protein Data Bank Atomic Coordinate and Bibliographic Entry Format Description document.) Under the methodologies used to refine structures from NMR, a number of models normally are generated which are consistent with the experimental data. All such models for which coordinates are deposited will be included in one single PDB entry, delineated by new record types MODEL and ENDMDL which will carry a unique model ID number. If an "average" structure is designated by the depositors, this will be placed in a separate entry. In addition, it is proposed to add to all entries a record type EXPDTA, with a field to describe the primary data from which the model has been derived (e.g., FIBER DIFFRACTION, NEUTRON DIFFRACTION, NMR, THEORETICAL MODEL, X-RAY DIFFRACTION).

While developing the scheme outlined above to accommodate NMR-based structures to the PDB format, we are also in the process of evaluating a number of format upgrades or extensions. Suggestions along these lines will be welcome, and should be sent to Enrique Abola.

The PDB has an opening for a Postdoctoral Research Associate, as described on the enclosed blue sheet. Interested applicants should contact Enrique Abola.

We are pleased to announce that the CAOS/CAMM Center, the Dutch National Facility for Computer-Assisted Chemistry, has joined existing on-line DATAPRTP distributors as on-line distributor serving the Dutch chemical research community through SURFnet. A complete list of on-line distributors is given below:

CAN/SND, Canadian Scientific Numeric Data Base Service, Ottawa
contact Roger Gough, telephone 613-933-3294, e-mail CANSND@NRCVM01

CAOS/CAMM, Dutch National Facility for Computer-Assisted Chemistry, Nijmegen
contact Jan Noordik, telephone 0031-080-613386, e-mail CAOS@HNYKUN52

EMBL, European Molecular Biology Laboratory, Heidelberg, FRG
contact Peter Rice, telephone 0049-6221-387-241, e-mail RICE@EMBL

Pittsburgh Supercomputing Center
contact Hugh Nicholas, telephone 412-268-4960, e-mail NICHOLAS@CPWPSCA

The established Protein Data Bank centers continue to provide their full range of services. Inquiries may be addressed as shown below. Please note that the order form on pages 7-8 should be used only for Brookhaven orders; users in Japan or Australia should contact their centers for detailed information.

Area	Address of Center	BITNET (BNL Only)	Name	Phone
Worldwide except Australia and Japan	Protein Data Bank	PDB@BNLCHM	Inquiries	516-282-4382
	Chemistry Department	ABOLA@BNLCHM	E. E. Abola	516-282-4383
	Brookhaven National Laboratory	BERNSTEIN@BNLCHM	F. C. Bernstein	516-282-4382
	Upton, NY 11973	KOETZLE@BNLCHM	P. A. Esposito	516-282-4382
	USA	WENG@BNLCHM	T. F. Koetzle J. C. Weng	516-282-4384 516-282-3629
Australia	CSIRO Division of Biotechnology 343 Royal Parade, Parkville Victoria 3052, Australia		P. Davis	03-342-4326
Japan	Institute for Protein Research Osaka University Yamadaoka, 3-2 Suita, Osaka 565, Japan		Y. Katsube	(06) 877-5111 ext. 3912

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4LY2	LYSOZYME (HEN EGG-WHITE, SET RS9A)	R. DIAMOND, D. PHILLIPS	2/75	4PTT	TRYPsin (DIP INHIBITED)	C. AMBERS, STROUD, FINER-MOORE/88 R	
5LY2	LYSOZYME (HEN EGG-WHITE, SET RS12A)	R. DIAMOND, D. PHILLIPS	2/75	1NTP	MODIFIED BETA TRYPsin (NEUTRON)	A. KOSS IAKOFF	9/87
6LY2	LYSOZYME (HEN EGG-WHITE, SET RS16)	R. DIAMOND, D. PHILLIPS	2/75	1TRM	TRYPsin (RAT) MUTANT (D102N)	SPRANG, STANDING, FLEETERICKI/10	8/87
7LY2	LYSOZYME (HEN EGG-WHITE, TRICLINIC)	A. YONATH	2/75	174M	TRYPsin (RAT) MUTANT (D102N)/BENZAMIDINE	R. STROUD, J. FINER-MOORE	4/80
1L2T	LYSOZYME (HEN EGG-WHITE, TRICLINIC)	HODSDON, BROWN, SIEKER, JENSEN	5/85	4P2I	TRYPsin INHIBITOR (BOVINE, PANCREAS)	R. HUBER, J. DEISENHOFER	9/82
8LY2	LYSOZYME (HEN EGG-WHITE, INACTIVATED)	S. CATLEY	9/77	5P2I	TRYPsin INHIBITOR (BOVINE, XRAY-NEUTRON)	A. WLODAWER, R. HUBER	10/84
9LY2	LYSOZYME (HEN, NAM-NAM-NAM SUBSTRATE ONLY)	J. KELLY, M. JAMES	12/79	6P2I	TRYPsin INHIBITOR (FORM III, BOVINE)	R. HUBER, J. DEISENHOFER	5/87
1L2H	LYSOZYME (HEN EGG-WHITE, MONOCLINIC)	ARTYMIUK, BLAKE, RICE, WILSON	6/81 A	2P2C	TRYPsin/TRYPsin INHIBITOR COMPLEX	R. HUBER, J. DEISENHOFER	9/82
2L2H	LYSOZYME (HEN EGG-WHITE, ORTHORHOMBIC)	ARTYMIUK, BLAKE, RICE, WILSON	6/81 A	17PA	TRYPsin (ANHYDRO)/TRYPsin INHIBITOR	HUBER, BODE, DEISENHOFER	3/82
1L2M	LYSOZYME (HEN EGG-WHITE, MONOCLINIC)	HOGLE, RAO, SUNDARALINGAM	7/82	18GT	TRYPsin (STREPOMYCES GRISEUS)	R. READ, M. JAMES	4/78
2LYM	LYSOZYME (HEN EGG-WHITE, 1 ATM)	C. KUNDROT, F. RICHARDS	5/87	17GN	TRYPsinOGEN	A. KOSS IAKOFF, R. STROUD	9/89
3LYM	LYSOZYME (HEN EGG-WHITE, 1000 ATM)	P. ARTYMIUK, C. BLAKE	5/87	27GA	TRYPsinOGEN (2.4M MGSO4)	J. WALTER, R. HUBER, M. BODE	10/81
1L2I	LYSOZYME (HUMAN)	R. BOTT, R. SARMA	10/84	17GC	TRYPsinOGEN (5 CH3OH, 5 H2O)	J. WALTER, R. HUBER, M. BODE	10/81
1L22	LYSOZYME (TURKEY EGG-WHITE)	J. WALTER, R. HUBER, M. BODE	10/81	17CT	TRYPsinOGEN (173 M, 7 CH3OH, 3 H2O)	J. WALTER, R. HUBER, M. BODE	10/81
1C2T	L7/L12 50S RIBOSOMAL PROTEIN (C-TERMINAL)	M. LEI, O. HANMARCK, A. J. LIJLAS	9/86	17CT	TRYPsinOGEN (103 M, 7 CH3OH, 3 H2O)	J. WALTER, R. HUBER, M. BODE	10/81
1M2D	MALATE DEHYDROGENASE	C. BURG ET AL.	3/83	17CB	TRYPsinOGEN (MTRK CA, FROM PEG)	BODE, FEHLHAMMER, HUBER	3/79
1MLT	MELITTIN	TERWILLIGER, EISENBERG	8/81	27GD	TRYPsinOGEN (DIP-INHIBITED, BOVINE)	R. HUBER ET AL.	3/86
2M2T	CD 32N METALLOTHIONEIN (ISOFORM II)	C. D. STOUT	10/85	27GP	TRYPsinOGEN/TRYPsin INHIBITOR	R. HUBER ET AL.	10/82
1M2B	MYOGLOBIN (SEAL, MET)	H. SCOULOUDI	3/79	27PI	TRYPsinOGEN/TRYPsin INHIBITOR/ILE-VAL	R. HUBER ET AL.	9/81
1M2N	MYOGLOBIN (SPERM WHALE, MET)	R. WATSON	4/73	27PI	TRYPsinOGEN/PTI/ILE-VAL (HECURRED)	J. WALTER, R. HUBER, M. BODE	10/82
2M2N	MYOGLOBIN (SPERM WHALE, MET)	T. TAKANO	9/76	47PI	TRYPsinOGEN/ARG-15-PTI/VAL-VAL	M. BODE, J. WALTER	6/85
3M2N	MYOGLOBIN (SPERM WHALE, DEOXY)	T. TAKANO	9/76	17GS	TRYPsinOGEN/PTI	R. HUBER ET AL.	9/82
1M2D	MYOGLOBIN (SPERM WHALE, DEOXY)	S. PHILLIPS	6/81	1M5Y	*TRYPTOPHAN SYNTHASE (S. TYPHIMURIUM)	D. DAVIES ET AL.	9/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1T51	TYROSYL TRANSFER RNA SYNTHETASE	BHAT, BLOW, BRICK, NYBORG	7/82 A
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1J0Q	UBIQUITIN (HUMAN)	VIJAY-KUMAR, BUGG, COOK	1/87
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1MEV	MENGO VIRUS	M. ROSSMANN	2/87
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	4R4V	RHINOVIRUS 14 (HUMAN)	E. ARNOOLD, M. ROSSMANN	11/87 R
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R51	RHINOVIRUS/ANTIVIRAL AGENT 15 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R51	RHINOVIRUS/ANTIVIRAL AGENT 1R COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R52	RHINOVIRUS/ANTIVIRAL AGENT 2 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R53	RHINOVIRUS/ANTIVIRAL AGENT 3 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R54	RHINOVIRUS/ANTIVIRAL AGENT 4 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R55	RHINOVIRUS/ANTIVIRAL AGENT 5 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R56	RHINOVIRUS/ANTIVIRAL AGENT 6 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R57	RHINOVIRUS/ANTIVIRAL AGENT 7 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R58	RHINOVIRUS/ANTIVIRAL AGENT 8 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R59	RHINOVIRUS/ANTIVIRAL AGENT 9 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R60	RHINOVIRUS/ANTIVIRAL AGENT 10 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R61	RHINOVIRUS/ANTIVIRAL AGENT 11 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R62	RHINOVIRUS/ANTIVIRAL AGENT 12 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R63	RHINOVIRUS/ANTIVIRAL AGENT 13 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R64	RHINOVIRUS/ANTIVIRAL AGENT 14 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R65	RHINOVIRUS/ANTIVIRAL AGENT 15 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R66	RHINOVIRUS/ANTIVIRAL AGENT 16 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R67	RHINOVIRUS/ANTIVIRAL AGENT 17 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R68	RHINOVIRUS/ANTIVIRAL AGENT 18 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R69	RHINOVIRUS/ANTIVIRAL AGENT 19 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R70	RHINOVIRUS/ANTIVIRAL AGENT 20 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R71	RHINOVIRUS/ANTIVIRAL AGENT 21 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R72	RHINOVIRUS/ANTIVIRAL AGENT 22 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R73	RHINOVIRUS/ANTIVIRAL AGENT 23 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R74	RHINOVIRUS/ANTIVIRAL AGENT 24 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R75	RHINOVIRUS/ANTIVIRAL AGENT 25 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R76	RHINOVIRUS/ANTIVIRAL AGENT 26 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R77	RHINOVIRUS/ANTIVIRAL AGENT 27 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R78	RHINOVIRUS/ANTIVIRAL AGENT 28 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R79	RHINOVIRUS/ANTIVIRAL AGENT 29 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R80	RHINOVIRUS/ANTIVIRAL AGENT 30 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R81	RHINOVIRUS/ANTIVIRAL AGENT 31 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R82	RHINOVIRUS/ANTIVIRAL AGENT 32 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R83	RHINOVIRUS/ANTIVIRAL AGENT 33 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R84	RHINOVIRUS/ANTIVIRAL AGENT 34 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R85	RHINOVIRUS/ANTIVIRAL AGENT 35 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R86	RHINOVIRUS/ANTIVIRAL AGENT 36 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R87	RHINOVIRUS/ANTIVIRAL AGENT 37 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R88	RHINOVIRUS/ANTIVIRAL AGENT 38 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R89	RHINOVIRUS/ANTIVIRAL AGENT 39 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R90	RHINOVIRUS/ANTIVIRAL AGENT 40 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R91	RHINOVIRUS/ANTIVIRAL AGENT 41 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R92	RHINOVIRUS/ANTIVIRAL AGENT 42 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R93	RHINOVIRUS/ANTIVIRAL AGENT 43 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R94	RHINOVIRUS/ANTIVIRAL AGENT 44 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R95	RHINOVIRUS/ANTIVIRAL AGENT 45 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R96	RHINOVIRUS/ANTIVIRAL AGENT 46 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R97	RHINOVIRUS/ANTIVIRAL AGENT 47 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R98	RHINOVIRUS/ANTIVIRAL AGENT 48 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R99	RHINOVIRUS/ANTIVIRAL AGENT 49 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R00	RHINOVIRUS/ANTIVIRAL AGENT 50 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R01	RHINOVIRUS/ANTIVIRAL AGENT 51 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R02	RHINOVIRUS/ANTIVIRAL AGENT 52 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R03	RHINOVIRUS/ANTIVIRAL AGENT 53 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R04	RHINOVIRUS/ANTIVIRAL AGENT 54 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R05	RHINOVIRUS/ANTIVIRAL AGENT 55 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R06	RHINOVIRUS/ANTIVIRAL AGENT 56 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R07	RHINOVIRUS/ANTIVIRAL AGENT 57 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R08	RHINOVIRUS/ANTIVIRAL AGENT 58 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R09	RHINOVIRUS/ANTIVIRAL AGENT 59 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R10	RHINOVIRUS/ANTIVIRAL AGENT 60 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R11	RHINOVIRUS/ANTIVIRAL AGENT 61 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R12	RHINOVIRUS/ANTIVIRAL AGENT 62 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R13	RHINOVIRUS/ANTIVIRAL AGENT 63 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R14	RHINOVIRUS/ANTIVIRAL AGENT 64 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R15	RHINOVIRUS/ANTIVIRAL AGENT 65 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R16	RHINOVIRUS/ANTIVIRAL AGENT 66 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R17	RHINOVIRUS/ANTIVIRAL AGENT 67 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R18	RHINOVIRUS/ANTIVIRAL AGENT 68 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R19	RHINOVIRUS/ANTIVIRAL AGENT 69 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R20	RHINOVIRUS/ANTIVIRAL AGENT 70 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R21	RHINOVIRUS/ANTIVIRAL AGENT 71 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R22	RHINOVIRUS/ANTIVIRAL AGENT 72 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R23	RHINOVIRUS/ANTIVIRAL AGENT 73 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R24	RHINOVIRUS/ANTIVIRAL AGENT 74 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R25	RHINOVIRUS/ANTIVIRAL AGENT 75 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R26	RHINOVIRUS/ANTIVIRAL AGENT 76 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R27	RHINOVIRUS/ANTIVIRAL AGENT 77 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R28	RHINOVIRUS/ANTIVIRAL AGENT 78 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R29	RHINOVIRUS/ANTIVIRAL AGENT 79 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R30	RHINOVIRUS/ANTIVIRAL AGENT 80 COMPLEX	M. ROSSMANN ET AL.	2/88
1M2B	MYOGLOBIN (SPERM WHALE, OXY)	S. PHILLIPS	6/81	1R31	RHINOVIRUS/ANTIVIRAL AGENT 81 COMPLEX	M. ROSSMANN ET AL.	2/88

1R0U	RHINOVIRUS MUTANT{(1)C199Y}	M.ROSSMANN ET AL.	10/88	F
2R0U	RHINOVIRUS MUTANT{(1)V184L}	M.ROSSMANN ET AL.	10/88	F
2R1I	RHINOVIRUS/ANTIVIRAL AGENT 1R COMPLEX	M.ROSSMANN ET AL.	10/88	RP
2R5I	RHINOVIRUS/ANTIVIRAL AGENT 1S COMPLEX	M.ROSSMANN ET AL.	10/88	RP
2R2M	RHINOVIRUS/ANTIVIRAL AGENT 2 COMPLEX	M.ROSSMANN ET AL.	10/88	RP
2R5J	RHINOVIRUS/ANTIVIRAL AGENT 3S COMPLEX	M.ROSSMANN ET AL.	10/88	RP
2R04	RHINOVIRUS/ANTIVIRAL AGENT 4 COMPLEX	M.ROSSMANN ET AL.	10/88	RP
2R55	RHINOVIRUS/ANTIVIRAL AGENT 5S COMPLEX	M.ROSSMANN ET AL.	10/88	RP
2R06	RHINOVIRUS/ANTIVIRAL AGENT 6 COMPLEX	M.ROSSMANN ET AL.	10/88	RP
2R07	RHINOVIRUS/ANTIVIRAL AGENT 7 COMPLEX	M.ROSSMANN ET AL.	10/88	RP
1R08	RHINOVIRUS/ANTIVIRAL AGENT 8 COMPLEX	M.ROSSMANN ET AL.	10/88	F
1FV8	IMMUNOGLOBULIN FV B1912 MODEL	E.KABAT, E.PADLAN	4/88	F
2FV8	IMMUNOGLOBULIN FV B1912 MODEL	E.KABAT, E.PADLAN	4/88	F
1FVW	IMMUNOGLOBULIN FV W3129 MODEL	E.KABAT, E.PADLAN	4/88	F
2FVW	IMMUNOGLOBULIN FV W3129 MODEL	E.KABAT, E.PADLAN	4/88	F
R5CYTSF	CYTOCHROME C (ALBACORE, REDUCED)	T.TAKANO	1/88	SP
R4GPDFS	AP0-GLYCERALDEHYDE-3-P-DEHYDRONASE (LBSTR)	M.ROSSMANN	1/88	SP
R1COBHSF	*HEMOGLOBIN (ALPHA-FERROUS, BETA-COBALTIOUS) B.LUISI	B.LUISI	1/89	SF
R3HFHSF	HYBEL-10 FAB/LYSOZYME COMPLEX	E.PADLAN, D.DAVIES	8/88	SF
R8LDHSF	AP0-H4-LACTATE DEHYDROGENASE/CITRATE	M.ROSSMANN	1/88	SP
R7LDHSF	LACTATE DEHYDROGENASE COMPLEXES	M.ROSSMANN	1/88	SP
R6LDHSF	AP0-H4-LACTATE DEHYDROGENASE (DOGF15R)	M.ROSSMANN	1/87	SP
R1LDMSF	LACTATE DEHYDROGENASE/NADH/OXAMATE (DOGF)	M.ROSSMANN	11/87	SP
R2LDMSF	LACTATE DEHYDROGENASE (MOUSE TESTES)	M.ROSSMANN	11/87	SP
R1LLCSF	*LACTATE DEHYDROGENASE (L.CASEI)	BUEHNER, RECHT, HENSEL	11/88	SF
R2LZ2SF	*LYSOZYME (TURKEY)	M.PARSONS	10/88	SF
R3HDHSF	*MALATE DEHYDROGENASE (PORCINE)	J.BIRKTOFT, L.BANASZAK	12/88	SF
R4HDHSF	MYOGLOBIN (SPERM WHALE, MET)	T.TAKANO	1/88	SF
R5HDHSF	MYOGLOBIN (SPERM WHALE, DEOXY)	T.TAKANO	1/88	SF
R2RHHSF	RIBONUCLEASE T1/GUANYL-2', 5'-GUANOSINE	U.HEINEMANN ET AL.	7/88	SF
R1RDGSF	RUBREDOXIN (DESULFOVIBRIO GIGAS)	FREY, SIEKER, PAYAN	3/88	SF
R2TRASF	TRANSFER RNA (YEAST, ASP, FORM A)	WESTHOFF, DUMAS, MORAS	11/87	SF
R3TRASF	TRANSFER RNA (YEAST, ASP, FORM B)	WESTHOFF, DUMAS, MORAS	11/87	SF
R1A1ASF	*RHINOVIRUS 1A	M.ROSSMANN ET AL.	12/88	SF

ODCR	HEMOGLOBIN (COBALT, DEOXY)			
OH8G	HEMOGLOBIN (GLYCERA DIBRANCHIATA)			
OH8T	HEMOGLOBIN (T STATE, HUMAN)			
OGU1	IMMUNOGLOBULIN, BENGE-JONES FRAGMENT (KAPPA) AD			
OGY1	IMMUNOGLOBULIN, BENGE-JONES FRAGMENT (V-MONOCHE, KAPPA) ROY			
O1G1	IMMUNOGLOBULIN G1 (KAPPA) DOB			
O1N4	INSULIN (HUMAN)			
O1N1	INSULIN (PORCINE)			
O1N2	INSULIN (PORCINE)			
O1N3	DESPENTAPEPTIDE INSULIN (BEEF)			
OGLM	LYSOZYME (EMBDEN GOOSE)			
OLZ5	LYSOZYME (HEN EGG-WHITE, NEUTRON STUDY)			
OLZ6	LYSOZYME (HEN EGG-WHITE, DEUTERATED ETHANOL)			
OLZ7	LYSOZYME (HEN EGG-WHITE, HIGH-TEMPERATURE)			
OLZ8	LYSOZYME (STREPTOMYCES ERYTHRAEUS)			
OTEL	LYSOZYME (TORTOISE EGG-WHITE)			
OB2M	BETA2-MICROGLOBULIN			
OMD0	MITOCHONDRIAL MALATE DEHYDROGENASE (PORCINE)			
OMBA	MYOGLOBIN (ALYSIA LIMACINA)			
OMBM	MYOGLOBIN (SPERM WHALE, MET, TEMPERATURE STUDIES)			
OMB3	MYOGLOBIN (SPERM WHALE, MET, NEUTRON STUDY)			
OPGL	PHOSPHOGLUCOMUTASE (RABBIT)			
OPPA	PHOSPHORYLASE A (RABBIT)			
OPB1	PHOSPHORYLASE B (RABBIT)			
OCFC	C-PHYCOCYANIN (AGHENEILLUM QUADRUPPLICATUM)			
OPF1	PROTHROMBIN FRAGMENT 1 (BOVINE)			
ORM5	RELAXIN (PORCINE) MOEL			
ORSA	RIBONUCLEASE A (BOVINE)			
ORIA	RIBONUCLEASE A (BOVINE) COMPLEX WITH DNA (AAAA)			
ORBS	RIBONUCLEASE (BOVINE SEMINAL)			
ORBI	RIBONUCLEASE B1 (HINASE)			
ORST	RIBONUCLEASE ST (STREPTOMYCES ERYTHREUS)			
OSBP	SULFATE-BINDING PROTEIN			
OSDE	FE-SUPEROXIDE DISMUTASE (ESCHERICHIA COLI)			
OSDP	FE-SUPEROXIDE DISMUTASE (PSEUDOMONAS OVALIS)			
OSDM	MN-SUPEROXIDE DISMUTASE (THERMUS THERMOPHILUS)			
OTHI	THIAMIN			
OTLL	THERMOLYSIN (BACILLUS THERMOPROTEOLYTICUS) COMPLEX WITH P-LEU-NH2			
OT4	THIOREDOXIN (BACTERIOPHAGE T4)			
OFMT	INITIATOR TRANSFER RNA (S. COLI, F/MET)			
OTAI	TRANSFER RNA (YEAST, ASP, A FORM)			
UTRI	TRANSFER RNA (YEAST, PRE)			
OMTS	METHIONYL TRANSFER RNA SYNTHETASE			
OTMD	TRIMETHYLAMINE DEHYDROGENASE			
OYPI	TRIOSE PHOSPHATE ISOMERASE (SACCHAROMYCES CEREVISIAE)			
OUVG	UTEROGLOBIN (RABBIT)			
OAD2	ADENOVIRUS TYPE 2 HEXON (AD2)			
OPLV	VIRUS (FOLIO, HUMAN)			

* NEW OR REPLACEMENT ENTRY SINCE OCT-88 NEWSLETTER

STATUS CODES

- A ALPHA CARBON ATOMS ONLY
- B BACKBONE ONLY
- N NEW ENTRY AWAITING APPROVAL BY DEPOSITOR
- P IN PREPARATION
- R REPLACEMENT FOR ENTRY IN TABLE 5
- SF STRUCTURE FACTORS

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

09-JAN-89

OEAP	ACID PROTEINASE (ENDOTHRIA PARASITICA)
OWG1	AGGLUTININ (WHEAT GERM, ISOLECTIN 1)
OH0E	ALPHA-AMYLASE INHIBITOR HD6-467A (STREPTOMYCES TENDAE 4158)
OF1	APOFERRITIN (HORSE)
OMAA	MITOCHONDRIAL ASPARTATE AMINOTRANSFERASE
ORNB	BARNASE (BACILLUS AMYLOLIQUEFACIENS)
OCPT	CALCIUM-BINDING PARVALBUMIN - TERBIUM COMPLEX
OCDI	CALOTROPIN D1 (CALOTROPIS GIGANTEA)
OCF5	CARBOXYPEPTIDASE A (ALPHA) /GLYCYL-L-TYROSINE (-9 DEGREES C)
ODZP	D-ALANYL-D-ALANINE PEPTIDASE (ZIN2+ G PEPTIDASE)
OGCB	GAMMA-CHYHOTRYPsin/3-BENZYL-6-CHLORO-2-PYRONE
OGC1	GAMMA-CHYHOTRYPsin - INACTIVATOR COMPLEX
OCN2	CONCAVALIN A (DEMETALLIZED)
OC51	CYTOCHROME C55 (CHLOROBIVM THIOSULFATOPHILUM)
OCFF	CYTOCHROME P450CAM (SUBSTRATE-FREE)
ODN1	DEOXYRIBONUCLEASE I (DNASE I)
OC3A	DES-ARG77-C3A ANAPHYLATOXIN
OCDF	DIHYDROFOLATE REDUCTASE (CHICKEN LIVER)
ODF5	R67 DIHYDROFOLATE REDUCTASE (ESCHERICHIA COLI)
ODN2	DNA (CGCAAAATTCGGC, SYNTHETIC)
ODN3	DNA (CGCGAATTCGGC, SYNTHETIC)
ODAC	DNA (CGCTACCC, SYNTHETIC) COMPLEX WITH TRIOSTIN
ODN1	DNA (CGGGCCCC, SYNTHETIC)
ODNB	DNA (CGCTATCC)
ODNB	DNA (CGGAUACCC)
OGTC	DNA (A, GCGGCTCC, SYNTHETIC)
OESC	ELASTASE COMPLEX WITH TWO MOLECULES OF ACE-ALA-PRO-ALA
OESE	ELASTASE COMPLEX (PIG)
OEXA	EXOTOXIN A (PSEUDOMONAS AERUGINOSA)
OFDL	FAB (IGG D1.3) COMPLEX WITH LYSOZYME
OPX1	FERRDOXIN I (APHANOTHECE SACRAM)
OPX3	FLAVODOXIN (OXIDIZED, ANACYSTIS NIDULANS)
OPX2	FLAVODOXIN (REDUCED, CLOSTRIDIUM MP)
OGBF	D-CALACTOSE-BINDING PROTEIN (ESCHERICHIA COLI)
OGLS	GLUTAMINE SYNTHETASE (SALMONELLA TYPHIMURIUM)
OGD2	D-GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE (BACILLUS STEAROTHERMOPHILUS)
OGCX	GLYCOLATE OXIDASE (SPINACHE)
OHPI	HEMOCYANIN (PANELIRUS INTERRUPTUS)

* NEW OR REPLACEMENT ENTRY SINCE OCT-88 NEWSLETTER

TABLE 8. CORRECTIONS TO COORDINATE ENTRIES AND PROGRAMS

09-JAN-89

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

A. ORDER CORR24F1. 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 DATAFTP.

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 REV DAT RECORDS.

REV DAT	4	09-JAN-89	1MB5C	1	HET
REV DAT	4	09-JAN-89	2SGAC	3	REMARK FORMUL HETATH
REV DAT	5	09-JAN-89	35GBD	3	REMARK FORMUL HETATH
REV DAT	3	09-JAN-89	2A7AB	1	JRNL
REV DAT	4	09-JAN-89	3R2CC	1	JRNL
REV DAT	2	09-JAN-89	3BCLA	3	SEQRES HETATH
REV DAT	2	09-JAN-89	1CBFA	1	SEQRES
REV DAT	2	09-JAN-89	3CLMA	1	JRNL
REV DAT	3	09-JAN-89	1ENLB	1	SEQRES
REV DAT	3	09-JAN-89	3ESTB	1	REMARK
REV DAT	2	09-JAN-89	1ETUA	1	SEQRES
REV DAT	2	09-JAN-89	4FD1A	3	HETATH CONECT
REV DAT	2	09-JAN-89	1BFMA	1	CRYST1
REV DAT	2	09-JAN-89	2BFMA	1	CRYST1
REV DAT	2	09-JAN-89	5TNC4	1	JRNL SEQRES

THE FOLLOWING DATA SETS HAVE BEEN REPLACED

	OLD	NEW
	ENTRY	ENTRY

NONE

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BROOKHAVEN ORDER FORM (Please include a self-addressed label)

1. Name _____ Date _____
 Address _____ Telephone _____
 _____ Electronic Mail _____

2. Documentation desired (no charge).

- Introduction to The Protein Data Bank (April 1988)
 Latest Newsletter
 Atomic Coordinate and Bibliographic Entry Format Description
 for DATAPRTP and DATAPRFI (January 1985)
 Current DATAPRTP Directory
 Sources of Visual Aids for Macromolecular Structure (January 1989)
 Non-Standard Entries (Structure Factors) Format Description
 Data Deposition Form

3. Please send the following magnetic tape items (from Table 1).

	6250 cpi	1600 cpi	TK50
DATAPRTP (coordinate tape)			
VAX/VMS BACKUP	<input type="checkbox"/> \$288	<input type="checkbox"/> \$367	<input type="checkbox"/> \$312
VAX/VMS COPY	<input type="checkbox"/> \$288	<input type="checkbox"/> \$367	<input type="checkbox"/> \$312
Unlabelled ASCII	<input type="checkbox"/> \$288	<input type="checkbox"/> \$367	
Unlabelled EBCDIC	<input type="checkbox"/> \$288	<input type="checkbox"/> \$367	
PDBPGMTP			
VAX/VMS COPY	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	<input type="checkbox"/> \$312
NONST1TP			
Unlabelled ASCII	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
Unlabelled EBCDIC	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
NONST2TP			
Unlabelled ASCII	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
Unlabelled EBCDIC	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
NONST3TP			
Unlabelled ASCII	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
Unlabelled EBCDIC	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
NONST4TP			
Unlabelled ASCII	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
Unlabelled EBCDIC	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
NONST5TP			
Unlabelled ASCII	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
Unlabelled EBCDIC	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
NONST6TP			
Unlabelled ASCII	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
Unlabelled EBCDIC	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
NONST7TP			
Unlabelled ASCII	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	
Unlabelled EBCDIC	<input type="checkbox"/> \$288	<input type="checkbox"/> \$288	

Cost: _____

Special order items (described in Table 1): Please inquire at Brookhaven for availability and price.

YEAR88TP	CONECTTP	DSTNCETP
PART89TP	DGPLOTTP	FISIPLTP
BENDERTP	DIHDLRTP	PHIPSITP

(Continued)

4. Foreign air mail postage for tape items listed in 3 above mailed from Brookhaven to destinations outside the U.S. and Canada. A postage surcharge of \$19 is required per item.

Number of items x \$19 = _____

5. Please send the following microfiche items (from Table 2). Each microfiche item costs \$310, postage included. Correction fiche are free.

Items: _____ Cost: _____

6. Please send the following printed listings. Each listing costs \$82, postage included.

Ident Code(s) (From Table 5): _____ Cost: _____

7. Total charges - All prices are expected to be valid through September 30, 1989. After that date please confirm prices.

Magnetic tape charges (3 above)	_____
Foreign air mail postage charges (4 above)	_____
Microfiche charges (5 above)	_____
Printed listing charges (6 above)	_____
Bank charge	_____
No charge for checks drawn in U.S. dollars on U.S. bank, otherwise \$10	

TOTAL COST : _____

METHOD OF PAYMENT:

Brookhaven requires that either a written purchase order or check payable to

BROOKHAVEN NATIONAL LABORATORY

be received before service is provided. Order forms and purchase orders may be sent by facsimile to (United States) 516-282-5815. The original order forms and purchase orders should also be sent to Brookhaven by mail.

() check is () enclosed
 () purchase order number _____ () sent separately

Please return **ORDER FORM** to

BROOKHAVEN NATIONAL LABORATORY
 Chemistry Department - Bldg. 555
 Ms. F. C. Bernstein
 Upton, New York 11973 USA
 (516-282-4382)

It is advisable to send a photocopy of this order form directly to Brookhaven; experience shows that purchasing departments often do not forward this form with the order.