Number 31 THE PROTEIN DATA BANK NEWSLETTER January 1985

We have just found that three tapes are now required to contain all current coordinate entries, bibliographic entries and computer programs (DATAPRTP) at 800 cpi. The charge for DATAPRTP at 800 cpi will be $266 (£222) as indicated on the attached order form. All other charges are unchanged.

The new data for B-DNA (entry 7BNA which is currently in preparation) includes anisotropic temperature factors. To accommodate this type of data we are defining record types ANISOU and SIGUIJ to be included in coordinate entries where appropriate. These records contain anisotropic temperature factors and their estimated standard deviations. Details of the format of these records can be found in the January 1985 revision of the Atomic Coordinate and Bibliographic Entry Format Description.

Inquiries may be addressed to any of the persons listed below. The order form on pages 5-6 of this Newsletter may be used to order data from Brookhaven or Cambridge; users in Australia or Japan should contact their centers for detailed information.

Area	Address of Center	Name	
The Americas	Protein Data Bank Chemistry Department Brookhaven National Laboratory Upton, New York 11973, USA	E. E. Abola F. C. Bernstein T. F. Koetzle	516-282-4383 516-282-4382 516-282-4384
Europe and Worldwide	University Chemical Laboratory Lensfield Road Cambridge CB2 1EW, England	O. Kennard S. Bellard	0223-66499
Australia	CSIRO Central Information Service P. O. Box 89, East Melbourne Victoria 3002, Australia	C. Garrow	03-418-7333
Japan	Institute for Protein Research Osaka University Yamadaoka, 3-2, Suita, Osaka 565, Japan	N. Yasuoka	(06) 877-5111 ext. 3912

Supported by the U. S. National Science Foundation and U. S. National Institutes of Health.

TABLE 1. PROTEIN DATA BANK, INFORMATION AVAILABLE ON MAGNETIC TAPE

23-JAN-85

CODE	ITEM	NO.TAPES 800	1600	6250	AVAILABILITY US	UK	JA	AUS
DATAPRTP	ALL CURRENT PROGRAMS, BIBLIOGRAPHIC ENTRIES, COORDINATE ENTRIES (TABLES 3, 7, 9)	3	2	1	X	X	X	X
YEAR84TP	NEW OR REVISED COORDINATE ENTRIES FOR 1984	1	1	1	X			
PART85TP	NEW OR REVISED COORD ENTRIES 1985 (TO DATE)	1	1	1	X			
NONST1TP	STRUCTURE FACTOR HOLDINGS (PART 1 - TABLE 4)	2	1	1	X	X	X	
NONST2TP	STRUCTURE FACTOR HOLDINGS (PART 2 - TABLE 5)	2	1	1	X	X	X	
NONST3TP	STRUCTURE FACTOR HOLDINGS (PART 3 - TABLE 6)	1	1	1	X	X	X	
BENDERTP	PARAMETERS FOR BENT-WIRE MODELS	1	1	1	X			
BLDKITTP	MODEL BUILDER*S KIT	PLEASE INQUIRE AT US CENTER						
CONECTTP	CONNECTIVITY SPECIFICATIONS FOR ALL ATOMS	2	1	1	X			
DGPLOTTP	DIAGONAL PLOTS (LINE PRINTER)	1	1	1	X			
DIHDRLTP	COMPLETE TORSION ANGLES	2	1	1	X			
DSTNCETP	CONNECTIVITY SPECIFICATIONS WITH DISTANCES	2	1	1	X			
FISIPLTP	PHI/PSI PLOTS (LINE PRINTER)	1	1	1	X			
PHIPSITP	LISTS OF PHI/PSI/OMEGA VALUES	1	1	1	X			

* NEW OR REPLACEMENT ENTRY SINCE OCT-84 NEWSLETTER

TABLE 2. PROTEIN DATA BANK, INFORMATION AVAILABLE ON MICROFICHE

23-JAN-85

CODE	ITEM	AVAILABILITY US	UK	JA	AUS
DATAPRFI	ALL CURRENT PROGRAMS, BIBLIOGRAPHIC ENTRIES, COORDINATE ENTRIES (TABLES 3, 7, 9)	X	X	X	
YEAR84FI	NEW OR REVISED COORDINATE ENTRIES FOR 1984	X			
PART85FI	NEW OR REVISED COORDINATE ENTRIES 1985 (TO DATE)	X			
NONST1FI	STRUCTURE FACTOR HOLDINGS (PART 1 - TABLE 4)	X	X	X	
NONST2FI	STRUCTURE FACTOR HOLDINGS (PART 2 - TABLE 5)	X	X	X	
NONST3FI	STRUCTURE FACTOR HOLDINGS (PART 3 - TABLE 6)	X	X	X	
CORR15FI	LIST OF CORRECTIONS NO. 15 (JUL/84 - JAN/85)	X	X	X	X
BENDERFI	PARAMETERS FOR BENT-WIRE MODELS	X			
BLDKITFI	MODEL BUILDER*S KIT	PLEASE INQUIRE AT US CENTER			
CONECTFI	CONNECTIVITY SPECIFICATIONS FOR ALL ATOMS	X			
DGPLOTFI	DIAGONAL PLOTS (LINE PRINTER)	X			
DIHDRLFI	COMPLETE TORSION ANGLES	X			
DSTNCEFI	CONNECTIVITY SPECIFICATIONS WITH DISTANCES	X			
FISIPLFI	PHI/PSI PLOTS (LINE PRINTER)	X			
PHIPSIFI	LISTS OF PHI/PSI/OMEGA VALUES	X			

* NEW OR REPLACEMENT ENTRY SINCE OCT-84 NEWSLETTER

TABLE 3. PROTEIN DATA BANK, AVAILABLE PROGRAMS

23-JAN-85

NAME	PURPOSE	AUTHOR(S)	REV DATE/ SUPPORTED	
BENDER	PARAMETERS FOR BENT-WIRE MODELS	G.WILLIAMS	4/82	YES
BLDKIT	MODEL BUILDER*S KIT	E.ABOLA	2/84	YES
CHIRAL	CHECK CHIRALITY	E.ABOLA	1/82	YES
CONECT	GENERATE FULL CONNECTIVITY	F.BERNSTEIN	8/82	YES
CONTCT	INTERMOLECULAR CONTACTS	L.ANDREWS	5/83	NO
DGPLOT	DIAGONAL PLOTS ON PRINTER	E.SWANSON,F.BERNSTEIN	1/83	YES
DIHDRL	COMPLETE TORSION ANGLES	E.ABOLA	3/80	YES
DRCTRY	DIRECTORY OF PDB DISTRIBUTION TAPE	E.ABOLA	5/84	YES
DSSP	SECONDARY STRUCTURE,SOLVENT EXPOSURE	W.KABSCH,C.SANDER	12/83	NO
DSTNCE	CALC DISTANCES FROM CONECT RECORDS	F.BERNSTEIN	8/82	YES
FISIPL	PHI/PSI PLOTS ON PRINTER	F.BERNSTEIN	5/79	YES
LSM	COLOR-CODED ALPHA-CARBON MODELS	R.MATELA,R.FLETTERICK	3/82	NO
NAMOD	BALL-AND-STICK MODEL DISPLAY	Y.BEPPU	11/78	NO
PHIPSI	MAIN-CHAIN TORSION ANGLES	ANDREWS,WILLIAMS,BERNSTEIN	2/79	YES
REFMTE	REFORMAT DATA FOR SUPERTAB,SUPERB	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
THEOD	MEASURE COORDINATES WITH THEODOLITE	L.LEBIODA	1/82	NO
TORSRU	COMPLETE TORSION ANGLES	G.REEKE	10/79	NO
TOTALS	VALIDATION OF MASTER RECORD	L.ANDREWS,F.BERNSTEIN	3/82	YES

* NEW OR REPLACEMENT ENTRY SINCE OCT-84 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 (PART 1, SEE ALSO TABLES 5,6)

23-JAN-85

IDENT CODE	MOLECULE	DEPOSITOR	DATE/ CODE	
R1ACTSF	ACTINIDIN	E.BAKER	7/77	SF
CHYMOF	ALPHA-CHYMOTRYPSIN (TOSYL)	D.BLOW	4/73	SF
RCARP04	CALCIUM-BINDING PARVALBUMIN	R.KRETSINGER	2/74	SF
RCARP05	CALCIUM-BINDING PARVALBUMIN	R.KRETSINGER	2/74	SF
R2B5CSF	CYTOCHROME B5	F.S.MATHEWS	12/77	SF
R3CYTSF	CYTOCHROME C (ALBACORE, OXIDIZED)	T.TAKANO,R.DICKERSON	7/80	SF
R4CYTSF	CYTOCHROME C (ALBACORE, REDUCED)	T.TAKANO,R.DICKERSON	7/80	SF
RCYC5501	CYTOCHROME C550	R.TIMKOVICH	4/76	SF
R1ZNASF	DNA(Z',CGCG,HIGH-SALT,SYNTHETIC)	H.DREW,R.DICKERSON	1/81	SF
R1BNASF	DNA(B,CGCGAATTCGCG,SYNTHETIC,290 DEG K)	H.DREW,R.DICKERSON	1/81	SF
RGPD04	GLYCERALDEHYDE-3-P-DEHYDROGENASE(LOBSTR)	M.ROSSMANN	8/75	SF
R2GPDSF	APO-GLYCERALDEHYDE-3-P-DEHYDROGENASE	M.ROSSMANN	12/79	SF
R2MHBSF	HEMOGLOBIN (HORSE, AQUO MET AND CO)	LADNER,HEIDNER,PERUTZ	6/80	SF
R1FDHSF	HEMOGLOBIN (HUMAN, FETAL, DEOXY)	J.FRIER	6/80	SF
RHUMDEH02	HEMOGLOBIN (HUMAN,DEOXY)	M.PERUTZ,G.FERMI	5/75	SF
LAMPRY1	HEMOGLOBIN (LAMPREY)	HENDRICKSON,LOVE,KARLE	5/73	SF
RLDH06	LACTATE DEHYDROGENASE	M.ROSSMANN	8/75	SF
RLDH07	LACTATE DEHYDROGENASE/NAD/PYRUVATE	M.ROSSMANN	8/75	SF
R5LDHSF	LACTATE DEHYDROGENASE/S-LAC/NAD (PIG)	U.GRAU,M.ROSSMANN	1/81	SF
R1LZHSF	LYSOZYME (HEN EGG-WHITE, MONOCLINIC)	C.BLAKE,D.RICE	6/81	SF
R2LZHSF	LYSOZYME (HEN EGG-WHITE, ORTHORHOMBIC)	C.BLAKE,D.RICE	6/81	SF
RMETMYSF1	MYOGLOBIN (SPERM WHALE, MET)	T.TAKANO	6/76	SF
RDEMYSF1	MYOGLOBIN (SPERM WHALE, DEOXY)	T.TAKANO	6/76	SF
RRUBY02	RUBREDOXIN	L.JENSEN	3/74	SF
R4TNASF	TRANSFER RNA (YEAST, PHE)	A.JACK,J.LADNER,A.KLUG	6/80	SF

CODES

SF STRUCTURE FACTORS

TABLE 5. PROTEIN DATA BANK, STRUCTURE FACTOR HOLDINGS (PART 2, SEE ALSO TABLES 4,6)

23-JAN-85

IDENT CODE	MOLECULE	DEPOSITOR	DATE/ CODE	
R1ICBSF	CALCIUM-BINDING PROTEIN(INTESTINAL)	D.SZEBENYI,K.MOFFAT	7/83	SF
R1CCRSF	CYTOCHROME C (RICE)	H.OCHI,N.TANAKA	3/83	SF
R351CSF	CYTOCHROME C551 (OXIDIZED)	T.TAKANO,R.DICKERSON	9/81	SF
R451CSF	CYTOCHROME C551 (REDUCED)	T.TAKANO,R.DICKERSON	9/81	SF
R1ANASF	DNA(A,D-IODO-CCGG)SPACE GROUP P 43 21 2	B.CONNER,R.DICKERSON	6/82	SF
R1ANAP2	DNA(A,D-IODO-CCGG)SPACE GROUP P 21	B.CONNER,R.DICKERSON	6/82	SF
R2BNASF	DNA(B,CGCGAATTCGCG,SYNTHETIC,16 DEG K)	H.DREW,R.DICKERSON	11/81	SF
R3BNASF	DNA(B,9-BR-CGCGAATTCGCG,20 DEG C)	KOPKA,FRATINI,DICKERSON	2/82	SF
R4BNASF	DNA(B,9-BR-CGCGAATTCGCG, 7 DEG C)	KOPKA,FRATINI,DICKERSON	2/82	SF
R5BNASF	DNA(B,CGCGAATTCGCG,SYNTHETIC)/CISPLATIN	WING,PJURA,DREW,DCKRSN	8/83	SF
R1GAASF	GLUTAMINASE-ASPARAGINASE(ACINETOBACTER)	H.AMMON	12/82	SF
R1GASSF	GLUTAMINASE-ASPARAGINASE(PSEUDOMONAS 7A)	H.AMMON	12/82	SF
R1HMOSF	HEMERYTHRIN(MET)	STENKAMP,SIEKER,JENSEN	2/83	SF
R1HMZSF	HEMERYTHRIN(AZIDO,MET)	STENKAMP,SIEKER,JENSEN	2/83	SF
R2INSSF	INSULIN(BOVINE,2-ZINC)DES-PHE B1	C.REYNOLDS,G.DODSON	5/82	SF
R1LH1SF	LEGHEMOGLOBIN(ACETATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH1SF	LEGHEMOGLOBIN(ACETATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LH2SF	LEGHEMOGLOBIN(AQUO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH2SF	LEGHEMOGLOBIN(AQUO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LH3SF	LEGHEMOGLOBIN(CYANO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH3SF	LEGHEMOGLOBIN(CYANO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LH4SF	LEGHEMOGLOBIN(DEOXY)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH4SF	LEGHEMOGLOBIN(DEOXY)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LH5SF	LEGHEMOGLOBIN(FLUORO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH5SF	LEGHEMOGLOBIN(FLUORO MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LH6SF	LEGHEMOGLOBIN(NICOTINATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH6SF	LEGHEMOGLOBIN(NICOTINATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LH7SF	LEGHEMOGLOBIN(FERRO)/NITROSOBENZENE	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R2LH7SF	LEGHEMOGLOBIN(FERRO)/NITROSOBENZENE	VAINSHTEIN,HARUTYUNYAN	4/82	SF
R1LYMSF	LYSOZYME(HEN EGG-WHITE,MONOCLINIC)	HOGLE,RAO,SUNDARALINGAM	7/82	SF
R1MLTSF	MELITTIN	TERWILLIGER,EISENBERG	8/81	SF
R1OVOSF	OVOMUCOID FRAGMENT	E.PAPAMOKOS,R.HUBER	1/82	SF
R2BP2SF	PROPHOSPHOLIPASE A2 (BOVINE)	DIJKSTRA,HOL,DRENTH	9/81	SF
R1PYPSF	INORGANIC PYROPHOSPHATASE	E.HARUTYUNYAN ET AL.	2/83	SF
R1RN3SF	RIBONUCLEASE A	BORKAKOTI,MOSS,PALMER	6/82	SF
R4RSASFX	RIBONUCLEASE A (XRAY)	A.WLODAWER	6/82	SF
R4RSASFN	RIBONUCLEASE A (NEUTRON)	A.WLODAWER	6/82	SF
R3TLNSF	THERMOLYSIN(NATIVE)	B.MATTHEWS,M.HOLMES	2/82	SF
R2PTNSF	TRYPSIN(ORTHORHOMBIC,2.4M (NH4)2SO4)	J.WALTER,R.HUBER	10/81	SF
R1TPOSF	TRYPSIN(ORTHORHOMBIC)	BODE,WALTER,HUBER	9/82	SF
R3PTNSF	TRYPSIN(TRIGONAL,2.4M (NH4)2SO4)	J.WALTER,R.HUBER	10/81	SF
R2PTBSF	TRYPSIN(BENZAMIDINE INHIBITED)	BODE,SCHWAGER,WALTER	9/82	SF
R1TPPSF	TRYPSIN/P-AMIDINO-PHENYL-PHYRUVATE	WALTER,BODE,HUBER	9/82	SF
R4PTISF	TRYPSIN INHIBITOR(BOVINE,PANCREAS)	R.HUBER,J.DEISENHOFER	9/82	SF
R2PTCSF	TRYPSIN/TRYPSIN INHIBITOR COMPLEX	R.HUBER,J.DEISENHOFER	9/82	SF
R1TPASF	TRYPSIN(ANHYDRO)/TRYPSIN INHIBITOR	HUBER,BODE,DEISENHOFER	9/82	SF
R2TGASF	TRYPSINOGEN(2.4M MGSO4)	J.WALTER,R.HUBER	10/81	SF
R1TGCSF	TRYPSINOGEN(.5 CH3OH,.5 HOH)	J.WALTER,R.HUBER	10/81	SF
R1TGTSF	TRYPSINOGEN(173 DEG K,.7 CH3OH,.3 HOH)	J.WALTER,R.HUBER	10/81	SF
R2TGTSF	TRYPSINOGEN(103 DEG K,.7 CH3OH,.3 HOH)	J.WALTER,R.HUBER	10/81	SF
R2TGPSF	TRYPSINOGEN/TRYPSIN INHIBITOR	R.HUBER ET AL.	9/82	SF
R3TPISF	TRYPSINOGEN/TRYPSIN INHIBITOR/ILE-VAL	R.HUBER ET AL.	9/82	SF
R2TPISF	TRYPSINOGEN/PTI/ILE-VAL (MERCURATED)	J.WALTER,R.HUBER	10/81	SF
R1TGSSF	TRYPSINOGEN/PSTI	R.HUBER ET AL.	9/82	SF

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SF STRUCTURE FACTORS

TABLE 6. PROTEIN DATA BANK, STRUCTURE FACTOR HOLDINGS (PART 3, SEE ALSO TABLES 4,5)

23-JAN-85

IDENT CODE	MOLECULE	DEPOSITOR	DATE/ CODE	
R2GCHSF	GAMMA-CHYMOTRYPSIN	COHEN,DAVIES,SILVERTON	7/84	SF
R1CYPSF	CYTOCHROME C PEROXIDASE(YEAST)	FINZEL,POULOS,KRAUT	11/83	SF
R2C2CSF	CYTOCHROME C2(OXIDIZED)	BHATIA,FINZEL,KRAUT	11/83	SF
R3C2CSF	CYTOCHROME C2(REDUCED)	BHATIA,FINZEL,KRAUT	11/83	SF
R6BNASF	*DNA(B,CGCGAATTCGCG,SYNTHETIC)/NETROPSIN	M.KOPKA,R.DICKERSON	8/84	SF
R1FX1SF	*FLAVODOXIN(D.VULGARIS,UNREFINED)	WATENPAUGH,SIEKR,JENSN	10/84	SF
R2HHBSF	HEMOGLOBIN(HUMAN,DEOXY)	G.FERMI,M.PERUTZ	3/84	SF
R1HHOSF	HEMOGLOBIN(HUMAN,OXY)	B.SHAANAN	3/84	SF
R1MCPSF	*IMMUNOGLOBULIN FAB(KAPPA)MCPC603	G.COHEN ET AL.	7/84	SF
R2MCPSF	*IGG FAB(KAPPA)MCPC603/PHOSPHOCHOLINE	PADLAN,COHEN,DAVIES	10/84	SF
R1MBOSF	MYOGLOBIN(SPERM WHALE,OXY)	S.PHILLIPS	3/84	SF
R1PPDSF	*PAPAIN D	J.JANSONIUS	10/84	SF
R3RP2SF	PROTEINASE II(RAT MAST CELL)	S.REMINGTON,B.MATTHEWS	9/84	SF
R5PTISFX	*PTI(XRAY)	A.WLODAWER,R.HUBER	10/84	SF
R5PTISFN	*PTI(NEUTRON)	A.WLODAWER,R.HUBER	10/84	SF
R3SBVSF	VIRUS COAT PROTEIN(SOUTHERN BEAN MOSAIC)	M.ROSSMANN	3/84	SF

* NEW OR REPLACEMENT ENTRY SINCE OCT-84 NEWSLETTER

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TABLE 7. PROTEIN DATA BANK, ATOMIC COORDINATE HOLDINGS

23-JAN-85

IDENT CODE	MOLECULE	DEPOSITOR(S)	DATE/ STATUS
2APE	ACID PROTEINASE(ENDOTHIA PARASITICA)	T.BLUNDELL	9/81
2APP	ACID PROTEINASE(PENICILLIUMJANTHINELLUM)	A.SIELECKI,M.JAMES	1/83 R
1APR	ACID PROTEINASE(RHIZOPUS CHINENSIS)	D.DAVIES	8/79
2ACT	ACTINIDIN	E.BAKER	11/79
1ACX	ACTINOXANTHIN	V.PLETNEV,A.KUZIN	12/82
2ADK	ADENYLATE KINASE (PORCINE MUSCLE)	G.SCHULZ	3/77
1AGA	AGAROSE	S.ARNOTT	5/78
2WGA	AGGLUTININ (WHEAT GERM)	C.WRIGHT	5/80
4ADH	ALCOHOL DEHYDROGENASE (APO)	C.-I.BRANDEN	8/79
5ADH	ALCOHOL DEHYDROGENASE(APO)/ADP-RIBOSE	H.EKLUND,T.A.JONES	1/84
6ADH	ALCOHOL DEHYDROGENASE(HOLO)/NADH/DMSO	H.EKLUND	1/84
7ADH	ALCOHOL DEHYDRGNSE(ISONICOTINIMIDYLATED)	B.PLAPP,H.EKLUND	1/84
1ALP	ALPHA LYTIC PROTEASE	BRAYER,DELBAERE,JAMES	6/79
2TAA	TAKA-AMYLASE	KUSUNOKI,MATSUURA,KAKUDO	10/82
5API	*ALPHA 1-ANTITRYPSIN(MODIFIED,TETRAGONAL)	R.HUBER ET AL.	10/84
6API	*ALPHA 1-ANTITRYPSIN(MODIFIED,HEXAGONAL)	R.HUBER ET AL.	10/84
1ABP	L-ARABINOSE-BINDING PROTEIN	F.QUIOCHO,G.GILLILAND	5/80
1AAT	CYTOSOLIC ASPARTATE AMINOTRANSFERASE	HARUTYUNYAN,MALASHKEVICH	4/82 A
2ATC	ASPARTATE CARBAMOYLTRANSFERASE	W.LIPSCOMB	3/82
4ATC	*ASPARTATE CARBAMOYLTRANSFERASE	W.LIPSCOMB	4/84
5ATC	*ASPARTATE CARBAMOYLTRANSFERASE/CTP	W.LIPSCOMB	4/84 R
1AZA	AZURIN(ALCALIGENES DENITRIFICANS)	E.BAKER,G.NORRIS	5/84
1AZU	AZURIN(PSEUDOMONAS AERUGINOSA)	E.ADMAN,L.SIEKER,L.JENSEN	8/80
2BCL	BACTERIOCHLOROPHYLL A-PROTEIN	B.MATTHEWS	1/79 A
1ABX	ALPHA-BUNGAROTOXIN	D.AGARD,S.SPENCER,R.STROUD	4/80 A
1CPV	CALCIUM-BINDING PARVALBUMIN SET 6A	R.KRETSINGER	8/74
2CPV	CALCIUM-BINDING PARVALBUMIN SET 6H	R.KRETSINGER	8/74
3CPV	CALCIUM-BINDING PARVALBUMIN SET 6I	R.KRETSINGER	8/74
1ICB	CALCIUM-BINDING PROTEIN(INTESTINAL)	D.SZEBENYI,K.MOFFAT	7/83
1CAP	CAPSULAR POLYSACCHARIDE (E. COLI M41)	S.ARNOTT	5/78
2CAB	CARBONIC ANHYDRASE B (HUMAN)	K.KANNAN	10/83 R
1CAC	CARBONIC ANHYDRASE C (HUMAN)	K.KANNAN	5/76
3CPA	CARBOXYPEPTIDASE A/GLYCYLTYROSINE	D.REES,W.LIPSCOMB	3/82
4CPA	CARBOXYPEPTIDASE A/POTATO INHIBITOR	D.REES,W.LIPSCOMB	3/82
5CPA	CARBOXYPEPTIDASE A/WATER (BOVINE)	D.REES,W.LIPSCOMB	5/82
1CPB	CARBOXYPEPTIDASE B (BOVINE)	M.SCHMID,J.HERRIOTT	6/76 A
1CAR	CARRAGEENAN	S.ARNOTT	5/78
3CAT	CATALASE (BEEF LIVER)	M.ROSSMANN	7/82
4CAT	CATALASE(PENICILLIUM VITALE)	B.VAINSHTEIN ET AL.	2/83 B
1C4S	CHONDROITIN-4-SULFATE	S.ARNOTT	5/78
2C4S	CHONDROITIN-4-SULFATE (CA SALT)	S.ARNOTT	5/78
2CHA	ALPHA-CHYMOTRYPSIN (TOSYL)	D.BLOW	1/75
3CHA	ALPHA-CHYMOTRYPSIN	A.TULINSKY	8/76
2GCH	GAMMA-CHYMOTRYPSIN	COHEN,DAVIES,SILVERTON	5/80
1CHG	CHYMOTRYPSINOGEN	J.KRAUT,J.BIRKTOFT	3/75
1CTS	CITRATE SYNTHASE(PIG)	REMINGTON,WIEGAND,HUBER	1/84
2CTS	CITRATE SYNTHASE(PIG,COA,CITRATE CMPLX)	REMINGTON,WIEGAND,HUBER	1/84
3CTS	CITRATE SYNTHASE(CHICKEN,COA,CITRATE)	REMINGTON,WIEGAND,HUBER	1/84
4CTS	CITRATE SYNTHASE(PIG,OXALOACETATE CMPLX)	REMINGTON,WIEGAND,HUBER	1/84
1CTX	ALPHA COBRATOXIN	W.SAENGER,M.WALKINSHAW	3/82
2CNA	CONCANAVALIN A	G.REEKE,J.BECKER,G.EDELMAN	4/75
3CNA	CONCANAVALIN A	K.HARDMAN	9/76
1CN1	CONCANAVALIN A (DEMETALLIZED)	M.SHOHAM	12/81
1CRN	CRAMBIN	W.HENDRICKSON,M.TEETER	5/81
2B5C	CYTOCHROME B5 (OXIDIZED)	F.S.MATHEWS	12/77
156B	CYTOCHROME B562 (E.COLI,OXIDIZED)	BETHGE,CZERWINSKI,MATHEWS	8/79
3CYT	CYTOCHROME C (ALBACORE, OXIDIZED)	T.TAKANO,R.DICKERSON	7/80
4CYT	CYTOCHROME C (ALBACORE, REDUCED)	T.TAKANO,R.DICKERSON	7/80
1CYC	CYTOCHROME C (BONITO, HEART)	M.KAKUDO	8/76
1CCR	CYTOCHROME C (RICE)	H.OCHI,N.TANAKA	3/83
1CCY	CYTOCHROME C.PRIME.	P.WEBER,R.SALEMME	8/81
1CYP	CYTOCHROME C PEROXIDASE(YEAST)	B.FINZEL,T.POULOS,J,KRAUT	11/83
2C2C	CYTOCHROME C2(OXIDIZED)	G.BHATIA,B.FINZEL,J,KRAUT	11/83 R
3C2C	CYTOCHROME C2(REDUCED)	G.BHATIA,B.FINZEL,J,KRAUT	11/83
2CDV	CYTOCHROME C3(DESULFOVIBRIO VULGARIS)	N.YASUOKA,M.KAKUDO	11/83 R
1CC5	CYTOCHROME C5(OXIDIZED,AZOTOBACTER VNLD)	C.D.STOUT,D.CARTER	8/84
155C	CYTOCHROME C550	R.TIMKOVICH	8/76
351C	CYTOCHROME C551 (OXIDIZED)	MATSUURA,TAKANO,DICKERSON	7/81
451C	CYTOCHROME C551 (REDUCED)	MATSUURA,TAKANO,DICKERSON	7/81
3DFR	DIHYDROFOLATE REDUCTASE (L.CASEI)	J.BOLIN,D.MATTHEWS,J.KRAUT	6/82
4DFR	DIHYDROFOLATE REDUCTASE (E. COLI)	J.BOLIN,D.MATTHEWS,J.KRAUT	6/82
1ANA	DNA(A,5(PRIME)-D-IODO-CCGG-3(PRIME))	B.CONNER,R.DICKERSON	6/82
1BNA	DNA(B,CGCGAATTCGCG,SYNTHETIC,290 DEG K)	H.DREW,R.DICKERSON	1/81
2BNA	DNA(B,CGCGAATTCGCG,SYNTHETIC,16 DEG K)	H.DREW,R.DICKERSON	11/81
3BNA	DNA(B,9-BR-CGCGAATTCGCG,20 DEG C)	KOPKA,FRATINI,DICKERSON	2/82
4BNA	DNA(B,9-BR-CGCGAATTCGCG, 7 DEG C)	KOPKA,FRATINI,DICKERSON	2/82
5BNA	DNA(B,CGCGAATTCGCG,SYNTHETIC)/CISPLATIN	WING,PJURA,DREW,DICKERSON	8/83
6BNA	*DNA(B,CGCGAATTCGCG,SYNTHETIC)/NETROPSIN	M.KOPKA,R.DICKERSON	8/84
1ZNA	DNA(Z',CGCG,HIGH-SALT,SYNTHETIC)	H.DREW,R.DICKERSON	1/81
1EST	ELASTASE (PORCINE, TOSYL)	H.WATSON	5/76
1ECD	ERYTHROCRUORIN (REDUCED, DEOXY)	W.STEIGEMANN,E.WEBER	3/79
1ECO	ERYTHROCRUORIN (CARBONMONOXY)	W.STEIGEMANN,E.WEBER	3/79
1ECA	ERYTHROCRUORIN (AQUO, MET)	W.STEIGEMANN,E.WEBER	3/79
1ECN	ERYTHROCRUORIN (CYANO, MET)	W.STEIGEMANN,E.WEBER	3/79
2FD1	FERREDOXIN (AZOTOBACTER VINELANDII)	STOUT,GHOSH,FUREY,ODONNELL	11/81
1FDX	FERREDOXIN (PEPTOCOCCUS AEROGENES)	E.ADMAN,L.SIEKER,L.JENSEN	8/76
3FXC	FERREDOXIN (SPIRULINA PLATENSIS)	TSUKIHARA,KATSUBE,KAKUDO	12/81
3FXN	FLAVODOXIN (CLOSTRIDIUM MP,OXIDIZED)	M.LUDWIG	12/77
4FXN	FLAVODOXIN (CLOSTRIDIUM MP,SEMIQUINONE)	M.LUDWIG	12/77
1FX1	*FLAVODOXIN(D.VULGARIS,UNREFINED)	WATENPAUGH,SIEKER,JENSEN	10/84
1GBP	GALACTOSE-BINDING PROTEIN	S.MOHBRAY,G.PETSKO	8/83 A
1GCN	GLUCAGON	T.BLUNDELL	10/77
1PGI	GLUCOSE-6-PHOSPHATE ISOMERASE	H.MUIRHEAD	7/77 A
2GRS	GLUTATHIONE REDUCTASE (HUMAN)	G.SCHULZ	11/81
1GPD	GLYCERALDEHYDE-3-P-DEHYDROGENASE(LOBSTR)	M.ROSSMANN	7/75
2GPD	APO-GLYCERALDEHYDE-3-P-DEHYDROGENASE	M.ROSSMANN	12/79
3GPD	GLYCERALDEHYDE-3-P-DEHYDROGENASE(HUMAN)	H.WATSON,J.CAMPBELL	6/83
1HRB	HEMERYTHRIN B	W.HENDRICKSON	6/76 A
1HMQ	HEMERYTHRIN(MET)	STENKAMP,SIEKER,JENSEN	2/83 R
1HMZ	HEMERYTHRIN(AZIDO,MET)	STENKAMP,SIEKER,JENSEN	2/83
1HR3	HEMERYTHRIN(AZIDO,MET,SIPHONOSOMA)	SMITH,HENDRICKSON,ADDISON	5/83
1HDS	HEMOGLOBIN (DEER, SICKLE CELL)	E.AMMA,R.GIRLING	10/79
2MHB	HEMOGLOBIN (HORSE, AQUO MET)	R.LADNER,HEIDNER,PERUTZ	2/77
2DHB	HEMOGLOBIN (HORSE, DEOXY)	M.PERUTZ,G.FERMI	11/73
2HHB	HEMOGLOBIN(HUMAN,DEOXY)	G.FERMI,M.PERUTZ	3/84 R
3HHB	HEMOGLOBIN(HUMAN,DEOXY,SYMMETRY AVRGD)	G.FERMI,M.PERUTZ	3/84 R
4HHB	HEMOGLOBIN(HUMAN,DEOXY,UNRESTRAINED)	G.FERMI,M.PERUTZ	3/84 R
1HCO	HEMOGLOBIN(HUMAN,CARBONMONOXY)	J.BALDWIN	8/79
2HCO	HEMOGLOBIN(HUMAN,CARBONMONOXY,NRG REFND)	J.BALDWIN	8/79
1HHO	HEMOGLOBIN (HUMAN, OXY)	B.SHAANAN	6/83
1FDH	HEMOGLOBIN (HUMAN, FETAL, DEOXY)	J.FRIER	8/76
1HBS	HEMOGLOBIN S (HUMAN,SICKLE CELL)	E.PADLAN,W.LOVE	6/82
1LHB	HEMOGLOBIN (LAMPREY)	HENDRICKSON,LOVE,KARLE	3/73
2YHX	HEXOKINASE (YEAST) FORM BIII	STEITZ,ANDERSON,STENKAMP	3/78
1HKG	HEXOKINASE A - GLUCOSE COMPLEX (YEAST)	W.BENNETT JR.,T.STEITZ	12/80
1HIP	HIGH POTENTIAL IRON PROTEIN	J.KRAUT	4/75
1HYA	HYALURONIC ACID (NA SALT, 3-FOLD HELIX)	S.ARNOTT	11/77
2HYA	HYALURONIC ACID (NA SALT, 4-FOLD HELIX)	S.ARNOTT	5/78
3HYA	HYALURONIC ACID (NA SALT, 2-FOLD HELIX)	S.ARNOTT	5/78
4HYA	HYALURONIC ACID (CA SALT, 3-FOLD HELIX)	S.ARNOTT	5/78
1MCP	*IMMUNOGLOBULIN FAB(KAPPA)MCPC603	SATOW,COHEN,PADLAN,DAVIES	7/84
2MCP	*IGG FAB(KAPPA)MCPC603/PHOSPHOCHOLINE	E.PADLAN,G.COHEN,D.DAVIES	10/84
1FB4	IMMUNOGLOBULIN FAB (LAMBDA) KOL	M.MARQUART,R.HUBER	5/83
3FAB	IMMUNOGLOBULIN FAB.PRIME. NEW	R.POLJAK	9/81
1MCG	IMMUNOGLOBULIN B-J INTACT MCG	SCHIFFER,EDMUNDSON ET AL.	5/78 A
1REI	IMMUNOGLOBULIN B-J FRAGMENT(V-DIMER)REI	O.EPP,R.HUBER	3/76
2RHE	IMMUNOGLOBULIN B-J FRAGMENT(V-MNMER)RHE	FUREY,WANG,YOO,SAX	6/83 R
1FC1	IMMUNOGLOBULIN FC (HUMAN)	J.DEISENHOFER	5/81
1FC2	IMMUNOGLOBULIN FC-FRAGMENT B COMPLEX	J.DEISENHOFER	5/81
1IG2	IMMUNOGLOBULIN G1 (LAMBDA) KOL	M.MARQUART,R.HUBER	5/83
1INS	INSULIN(PORCINE,2-ZINC)	G.DODSON,D.HODGKIN	7/80
2INS	INSULIN(BOVINE,2-ZINC) DES-PHE B1	C.REYNOLDS,G.DODSON	5/82
2PKA	KALLIKREIN A(PORCINE)	W.BODE,Z.CHEN	5/84
2KAI	KALLIKREIN A(PORCINE)/PTI(BOVINE)	W.BODE,Z.CHEN	5/84
1KGA	KDPG ALDOLASE	A.TULINSKY	8/78 A
1KES	KERATAN SULFATE	S.ARNOTT	5/78
4LDH	LACTATE DEHYDROGENASE (DOGFISH)	W.EVENTOFF,M.ROSSMANN	4/77
3LDH	LACTATE DEHYDROGENASE/NAD/PYRUVATE(DOGF)	M.ROSSMANN	11/74
5LDH	LACTATE DEHYDROGENASE/S-LAC/NAD (PIG)	U.GRAU,M.ROSSMANN	10/80
1LDX	LACTATE DEHYDROGENASE (MOUSE TESTES)	W.MUSICK,M.ROSSMANN	9/78
1LH1	LEGHEMOGLOBIN(ACETATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82
2LH1	LEGHEMOGLOBIN(ACETATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82
1LH2	LEGHEMOGLOBIN(AQUO MET)	VAINSHTEIN,HARUTYUNYAN	4/82
2LH2	LEGHEMOGLOBIN(AQUO MET)	VAINSHTEIN,HARUTYUNYAN	4/82
1LH3	LEGHEMOGLOBIN(CYANO MET)	VAINSHTEIN,HARUTYUNYAN	4/82
2LH3	LEGHEMOGLOBIN(CYANO MET)	VAINSHTEIN,HARUTYUNYAN	4/82
1LH4	LEGHEMOGLOBIN(DEOXY)	VAINSHTEIN,HARUTYUNYAN	4/82
2LH4	LEGHEMOGLOBIN(DEOXY)	VAINSHTEIN,HARUTYUNYAN	4/82
1LH5	LEGHEMOGLOBIN(FLUORO MET)	VAINSHTEIN,HARUTYUNYAN	4/82
2LH5	LEGHEMOGLOBIN(FLUORO MET)	VAINSHTEIN,HARUTYUNYAN	4/82
1LH6	LEGHEMOGLOBIN(NICOTINATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82
2LH6	LEGHEMOGLOBIN(NICOTINATE MET)	VAINSHTEIN,HARUTYUNYAN	4/82
1LH7	LEGHEMOGLOBIN(FERRO)/NITROSOBENZENE	VAINSHTEIN,HARUTYUNYAN	4/82
2LH7	LEGHEMOGLOBIN(FERRO)/NITROSOBENZENE	VAINSHTEIN,HARUTYUNYAN	4/82
1LZM	LYSOZYME (BACTERIOPHAGE T4)	B.MATTHEWS	3/77
1LYZ	LYSOZYME (HEN EGG-WHITE, SET W2)	R.DIAMOND,D.PHILLIPS	2/75
2LYZ	LYSOZYME (HEN EGG-WHITE, SET RS5D)	R.DIAMOND,D.PHILLIPS	2/75
3LYZ	LYSOZYME (HEN EGG-WHITE, SET RS6A)	R.DIAMOND,D.PHILLIPS	2/75
4LYZ	LYSOZYME (HEN EGG-WHITE, SET RS9A)	R.DIAMOND,D.PHILLIPS	2/75
5LYZ	LYSOZYME (HEN EGG-WHITE, SET RS12A)	R.DIAMOND,D.PHILLIPS	2/75
6LYZ	LYSOZYME (HEN EGG-WHITE, SET RS16)	R.DIAMOND,D.PHILLIPS	2/75
7LYZ	LYSOZYME (HEN EGG-WHITE, TRICLINIC)	A.YONATH	5/77
8LYZ	LYSOZYME (HEN EGG-WHITE, INACTIVATED)	S.OATLEY	5/77
9LYZ	LYSOZYME(HEN,NAM-NAG-NAM SUBSTRATE ONLY)	J.KELLY,M.JAMES	12/79
1LZH	LYSOZYME (HEN EGG-WHITE,MONOCLINIC)	ARTYMIUK,BLAKE,RICE,WILSON	6/81 A
2LZH	LYSOZYME (HEN EGG-WHITE,ORTHORHOMBIC)	ARTYMIUK,BLAKE,RICE,WILSON	6/81 A
1LYM	LYSOZYME(HEN EGG-WHITE,MONOCLINIC)	HOGLE,RAO,SUNDARALINGAM	7/82
1LZ1	*LYSOZYME(HUMAN)	P.ARTYMIUK,C.BLAKE	10/84
1LZ2	LYSOZYME (TURKEY EGG-WHITE)	R.BOTT,R.SARMA	9/81 A
2MDH	MALATE DEHYDROGENASE	J.BIRKTOFT,L.BANASZAK	3/83 R
1MLT	MELITTIN	TERWILLIGER,EISENBERG	8/81
1MBS	MYOGLOBIN (SEAL, MET)	H.SCOULOUDI	3/79
1MBN	MYOGLOBIN (SPERM WHALE, MET)	H.WATSON	4/73
2MBN	MYOGLOBIN (SPERM WHALE, MET)	T.TAKANO	9/76
3MBN	MYOGLOBIN (SPERM WHALE, DEOXY)	T.TAKANO	9/76
1MBD	MYOGLOBIN (SPERM WHALE, DEOXY)	S.PHILLIPS	8/81
1MBO	MYOGLOBIN (SPERM WHALE, OXY)	S.PHILLIPS	8/81
1MB5	MYOGLOBIN(SPERM WHALE,CO,NEUTRON)	HANSON,NORVELL,SCHOENBORN	11/82
1MHR	MYOHEMERYTHRIN	W.HENDRICKSON	6/76 A
1NXB	NEUROTOXIN B (LATICAUDA SEMIFASCIATA)	D.TSERNOGLOU,G.PETSKO	8/80
1SN3	SCORPION NEUROTOXIN(VARIANT 3)	C.BUGG ET AL.	12/82
1OVO	OVOMUCOID THIRD DOMAIN(JAPANESE QUAIL)	E.PAPAMOKOS,R.HUBER	1/82
1PPT	AVIAN PANCREATIC POLYPEPTIDE	T.BLUNDELL	1/81
8PAP	PAPAIN (NATIVE)	J.DRENTH	11/76
1PAD	PAPAIN (ACE-ALA-ALA-PHE-ALA, CYS-25)	J.DRENTH	11/76
2PAD	PAPAIN (CYS DERIV OF CYS-25)	J.DRENTH	11/76
3PAD	PAPAIN (OXIDIZED CYS-25)	J.DRENTH	11/76
4PAD	PAPAIN (TOS-LYS, CYS-25)	J.DRENTH	11/76
5PAD	PAPAIN (BZOXY-GLY-PHE-GLY, CYS-25)	J.DRENTH	11/76
6PAD	PAPAIN (BZOXY-PHE-ALA, CYS-25)	J.DRENTH	11/76
1PPD	*PAPAIN D	J.JANSONIUS	10/84
1PEP	PEPSIN (PORCINE)	N.ANDREEVA ET AL.	7/78 A
1PFC	PFC FRAGMENT OF AN IGG	L.M.AMZEL	10/81
3PGK	PHOSPHOGLYCERATE KINASE (YEAST)	H.WATSON	7/82
2PGK	PHOSPHOGLYCERATE KINASE (HORSE)	P.EVANS,C.BLAKE	9/76 B
3PGM	PHOSPHOGLYCERATE MUTASE	H.WATSON	4/82
1BP2	PHOSPHOLIPASE A2 (BOVINE)	B.DIJKSTRA,J.DRENTH	4/81
2BP2	PROPHOSPHOLIPASE A2 (BOVINE)	B.DIJKSTRA,W.HOL,J.DRENTH	6/81
3BP2	PHOSPHOLIPASE A2 (BOVINE) TRANSAMINATED	B.DIJKSTRA,J.DRENTH	6/83
1P2P	PHOSPHOLIPASE A2 (PORCINE)	B.DIJKSTRA ET AL.	6/83
1PCY	PLASTOCYANIN(POPLAR,CU2+)	J.GUSS,H.FREEMAN	8/80
2PCY	PLASTOCYANIN(POPLAR,APO)	GARRETT,GUSS,FREEMAN	11/83
2PAB	PREALBUMIN (HUMAN, PLASMA)	S.OATLEY,C.BLAKE	9/77
2SGA	PROTEINASE A(STREPTOMYCES GRISEUS)	M.JAMES,A.SIELECKI	1/83 R
3SGB	PROTEINASE B(STREP. GRISEUS)/OMTKY3	A.SIELECKI ET AL.	1/83
3RP2	PROTEINASE II(RAT MAST CELL)	S.REMINGTON,B.MATTHEWS	9/84
1PYP	INORGANIC PYROPHOSPHATASE	E.HARUTYUNYAN ET AL.	2/83
1PYK	PYRUVATE KINASE (CAT)	H.MUIRHEAD	1/80 A
1RHD	RHODANESE	W.HOL	12/77
4RSA	RIBONUCLEASE A (XRAY+NEUTRON)	A.WLODAWER	6/82
1RN3	RIBONUCLEASE A	BORKAKOTI,MOSS,PALMER	10/81
1RNS	RIBONUCLEASE S	H.WYCKOFF,F.RICHARDS	4/73
2RXN	RUBREDOXIN(CLOSTRIDIUM PASTEURIANUM)	L.JENSEN	1/75
3RXN	RUBREDOXIN(DESULFOVIBRIO VULGARIS)	E.ADMAN,L.SIEKER,L.JENSEN	9/80
2SNS	STAPHYLOCOCCAL NUCLEASE	M.LEGG,F.A.COTTON,E.HAZEN	5/82
2SSI	SUBTILISIN INHIBITOR (STREPTOMYCES)	Y.MITSUI ET AL.	4/80
1SBT	SUBTILISIN BPN.PRIME.	J.KRAUT	8/72
2SBT	SUBTILISIN NOVO	J.DRENTH	9/76
1SIC	SUBTILISIN BPN(PRIME)/SSI COMPLEX	Y.MITSUI ET AL.	4/84 A
2SOD	SUPEROXIDE DISMUTASE	J.RICHARDSON,D.RICHARDSON	3/80
3TLN	THERMOLYSIN(NATIVE)	B.MATTHEWS,M.HOLMES	2/82
4TLN	THERMOLYSIN(L-LEU-NHOH)	B.MATTHEWS,M.HOLMES	2/82
5TLN	THERMOLYSIN(HONH-BZMALONYL-A-G-NTROANLD)	B.MATTHEWS,M.HOLMES	2/82
7TLN	THERMOLYSIN(CH2CO(N-OH)LEUOCH3)	B.MATTHEWS,M.HOLMES	1/83 R
1SRX	THIOREDOXIN (E. COLI, OXIDIZED)	B.-O.SODERBERG	5/76 A
4TNA	TRANSFER RNA (YEAST, PHE)	A.JACK,J.LADNER,A.KLUG	4/78
6TNA	TRANSFER RNA (YEAST, PHE)	S.-H.KIM ET AL.	11/78
8TNA	TRANSFER RNA (YEAST, PHE)	M.SUNDARALINGAM	2/79
1TIM	TRIOSE PHOSPHATE ISOMERASE	I.WILSON,D.PHILLIPS	9/76
2PTN	TRYPSIN(ORTHORHOMBIC,2.4M (NH4)2SO4)	J.WALTER,R.HUBER,W.BODE	10/81
1TPO	TRYPSIN(ORTHORHOMBIC)	W.BODE,J.WALTER,R.HUBER	9/82
3PTN	TRYPSIN(TRIGONAL,2.4M (NH4)2SO4)	J.WALTER,R.HUBER,W.BODE	10/81
3PTB	TRYPSIN(BENZAMIDINE INHIBITED)	W.BODE,P.SCHWAGER,J.WALTER	9/82
1TPP	TRYPSIN/P-AMIDINO-PHENYL-PYRUVATE	J.WALTER,W.BODE,R.HUBER	9/82
3PTP	TRYPSIN (DIP INHIBITED)	J.CHAMBERS,R.STROUD	12/77
4PTI	TRYPSIN INHIBITOR(BOVINE,PANCREAS)	R.HUBER,J.DEISENHOFER	9/82
5PTI	*TRYPSIN INHIBITOR(BOVINE,XRAY+NEUTRON)	A.WLODAWER,R.HUBER	10/84
2PTC	TRYPSIN/TRYPSIN INHIBITOR COMPLEX	R.HUBER,J.DEISENHOFER	9/82
1TPA	TRYPSIN(ANHYDRO)/TRYPSIN INHIBITOR	HUBER,BODE,DEISENHOFER	9/82
1TGN	TRYPSINOGEN	A.KOSSIAKOFF,R.STROUD	9/79
2TGA	TRYPSINOGEN(2.4M MGSO4)	J.WALTER,R.HUBER,W.BODE	10/81
1TGC	TRYPSINOGEN(.5 CH3OH, .5 HOH)	J.WALTER,R.HUBER,W.BODE	10/81
1TGT	TRYPSINOGEN(173 DEG K,.7 CH3OH,.3 HOH)	J.WALTER,R.HUBER,W.BODE	10/81
2TGT	TRYPSINOGEN(103 DEG K,.7 CH3OH,.3 HOH)	J.WALTER,R.HUBER,W.BODE	10/81
1TGB	TRYPSINOGEN (WITH CA, FROM PEG)	BODE,FEHLHAMMER,HUBER	3/79
2TGP	TRYPSINOGEN/TRYPSIN INHIBITOR	R.HUBER ET AL.	9/82
3TPI	TRYPSINOGEN/TRYPSIN INHIBITOR/ILE-VAL	R.HUBER ET AL.	9/82
2TPI	TRYPSINOGEN/PTI/ILE-VAL (MERCURATED)	J.WALTER,R.HUBER,W.BODE	10/81
1TGS	TRYPSINOGEN/PSTI	R.HUBER ET AL.	9/82
1TSI	TYROSYL TRANSFER RNA SYNTHETASE	BHAT,BLOW,BRICK,NYBORG	7/82 A
2STV	VIRUS (SATELLITE TOBACCO NECROSIS)	T.A.JONES,L.LILJAS	6/84
3SBV	VIRUS COAT PROTEIN(SOUTHERN BEAN MOSAIC)	M.ROSSMANN	3/84 R
2TBV	VIRUS (TOMATO BUSHY STUNT)	S.HARRISON	6/84

MODEL STRUCTURES

2ZNA	DNA(Z-I,CGCGCG,SYNTHETIC,MODEL)	A.RICH	2/81
3ZNA	DNA(Z-II,CGCGCG,SYNTHETIC,MODEL)	A.RICH	2/81
1DNN	DNA(ATCGGCTAAG...,MODEL)	J.SUSSMAN,E.TRIFONOV	11/82
1GF1	INSULIN-LIKE GROWTH FACTOR I (MODEL)	BLUNDELL,BEDARKAR,HUMBEL	12/82
1GF2	INSULIN-LIKE GROWTH FACTOR II (MODEL)	BLUNDELL,BEDARKAR,HUMBEL	12/82
1MLP	MUREIN LIPOPROTEIN (MODEL)	A.MCLACHLAN	8/78
1RLX	RELAXIN(MODEL,CONFORMATION A,UNREFINED)	A.EVANS,A.NORTH	3/78
2RLX	RELAXIN(MODEL,CONFORMATION B,UNREFINED)	A.EVANS,A.NORTH	3/78
3RLX	RELAXIN(MODEL,CONFORMATION A,REFINED)	A.EVANS,A.NORTH	3/78
4RLX	RELAXIN(MODEL,CONFORMATION B,REFINED)	A.EVANS,A.NORTH	3/78
1TNC	TROPONIN (CA-BINDING COMPONENT,MODEL)	R.KRETSINGER,C.D.BARRY	6/80 A

STATUS CODES

BLANK	STANDARD ENTRY AVAILABLE FOR DISTRIBUTION
A	ALPHA CARBON ATOMS ONLY
B	BACKBONE ONLY
R	RECENT (1983-1985) REPLACEMENT FOR AN OUT-OF-DATE PARAMETER SET

* NEW OR REPLACEMENT ENTRY SINCE OCT-84 NEWSLETTER

TABLE 8. COORDINATE AND STRUCTURE FACTOR ENTRIES IN PREPARATION

23-JAN-85

7CAT	*CATALASE(BEEF LIVER)	I.FITA,M.ROSSMANN	11/84	RP
8CAT	*CATALASE(BEEF LIVER)	I.FITA,M.ROSSMANN	11/84	RP
4CHA	*ALPHA-CHYMOTRYPSIN(BOVINE)	H.TSUKADA,D.BLOW	11/84	RN
5CHA	*ALPHA-CHYMOTRYPSIN(BOVINE)	R.BLEVINS,A.TULINSKY	1/85	RP
7BNA	*DNA(B,CGCGAATTCGCG,ANISO TEMP FACTORS)	HOLBROOK,DICKERSON,KIM	1/85	P
11GE	*IMMUNOGLOBULIN E(FC FRAGMENT)MODEL	E.PADLAN,D.DAVIES	1/85	P
2PEP	*PEPSIN(ETHANOL-INHIBITED,PORCINE)	N.ANDREEVA	10/84	N
4RXN	RUBREDOXIN(C.PASTEURIANUM,UNCONSTR REF)	WATENPAUGH,SIEKER,JENSEN	10/84	N
5RXN	RUBREDOXIN(C.PASTEURIANUM,NRG+XTAL REF)	K.WATENPAUGH	10/84	N
1GN5	*GENE 5 DNA-UNWINDING PROTEIN(E.COLI)	A.MCPHERSON	11/84	N
R4CHASF	*ALPHA-CHYMOTRYPSIN(BOVINE)	H.TSUKADA,D.BLOW	11/84	SF
R7BNASF	*DNA(B,CGCGAATTCGCG,ANISO TEMP FACTORS)	HOLBROOK,DICKERSON,KIM	1/85	SF
R5RXNSF	RUBREDOXIN(C.PASTEURIANUM)	WATENPAUGH,SIEKR,JENSN	10/84	SF

* NEW OR REPLACEMENT ENTRY SINCE OCT-84 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 7
SF	STRUCTURE FACTORS

TABLE 9. PROTEIN DATA BANK, BIBLIOGRAPHIC ENTRIES

23-JAN-85

0EAP	ACID PROTEINASE (ENDOTHIA PARASITICA)
0ADC	ADH-NADH-DIMETHYLSULFOXIDE COMPLEX
0AF1	APOFERRITIN (HORSE)
0MAA	MITOCHONDRIAL ASPARTATE AMINOTRANSFERASE
0RNB	BARNASE (BACILLUS AMYLOLIQUEFACIENS)
0CDI	CALOTROPIN DI (CALOTROPIS GIGANTEA)
0PTE	D-ALANYL-CARBOXYPEPTIDASE-TRANSPEPTIDASE
0ZGP	D-ALANYL-D-ALANINE PEPTIDASE (ZN2+ G PEPTIDASE)
0CN2	CONCANAVALIN A (DEMETALLIZED)
0CRO	CRO REPRESSOR
0GCR	GAMMA-CRYSTALLIN II (CALF)
0CY3	CYTOCHROME C3 (DESULFOVIBRIO DESULFURICANS NORWAY)
05C1	CYTOCHROME C555 (CHLOROBIUM THIOSULFATOPHILUM)
0C3A	DES-ARG77-C3A ANAPHYLATOXIN
0CDF	DIHYDROFOLATE REDUCTASE (CHICKEN LIVER)
0ANB	DNA(GGTATACC)
0ANB	DNA(GG+UA+UACC)
0ESZ	ELASTASE COMPLEX (PIG)
0ETU	ELONGATION FACTOR TU COMPLEX (E. COLI)
0EBX	ERABUTOXIN B
0FXI	FERREDOXIN I(APHANOTHECE SACRUM)
0FX3	FLAVODOXIN(OXIDIZED,ANACYSTIS NIDULANS)
0FX2	FLAVODOXIN (REDUCED, CLOSTRIDIUM MP)
0GBP	D-GALACTOSE-BINDING PROTEIN(ESCHERICHIA COLI)
0GAP	CATABOLITE GENE ACTIVATOR PROTEIN
0GP1	GLUTATHIONE PEROXIDASE (BOVINE)
0GD1	D-GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE (BACILLUS STEAROTHERMOPHILUS)
0HMG	HEMAGGLUTININ
0HPI	HEMOCYANIN(PANULIRUS INTERRUPTUS)
0DCH	HEMOGLOBIN (COBALT,DEOXY)
0HBG	HEMOGLOBIN (GLYCERA DIBRANCHIATA)
0PHH	P-HYDROXYBENZOATE HYDROXYLASE (PSEUDOMONAS FLUORESCENS)
0AUI	IMMUNOGLOBULIN, BENCE-JONES FRAGMENT (KAPPA) AU
0ROY	IMMUNOGLOBULIN, BENCE-JONES FRAGMENT (V-MONOMER,KAPPA) ROY
0IG1	IMMUNOGLOBULIN G1 (KAPPA) DOB
0IN1	INSULIN (PORCINE)
0IN2	INSULIN (PORCINE)
0IN3	DESPENTAPEPTIDE INSULIN(BEEF)
0LRP	N-TERMINAL DOMAIN OF LAMBDA REPRESSOR
0GLM	LYSOZYME(EMBDEN GOOSE)
0LZ5	LYSOZYME (HEN EGG-WHITE, NEUTRON STUDY)
0LZT	LYSOZYME(HEN EGG-WHITE,HIGH-TEMPERATURE)
0LZ6	LYSOZYME (STREPTOMYCES ERYTHRAEUS)
0TEL	LYSOZYME(TORTOISE EGG-WHITE)
0CTF	L7/L12 (E. COLI, C-TERMINUS)
0MBA	MYOGLOBIN (APLYSIA LIMACINA)
0MBM	MYOGLOBIN (SPERM WHALE, MET, TEMPERATURE STUDIES)
0MB3	MYOGLOBIN (SPERM WHALE, MET, NEUTRON STUDY)
0PFK	PHOSPHOFRUCTOKINASE (BACILLUS STEAROTHERMOPHILUS)
0PP2	PHOSPHOLIPASE A2 (RATTLESNAKE)
0PPA	PHOSPHORYLASE A (RABBIT)
0PB1	PHOSPHORYLASE B (RABBIT)
0RX5	RELAXIN (PORCINE, MODEL)
0RSA	RIBONUCLEASE A (BOVINE)
0RBS	RIBONUCLEASE(BOVINE SEMINAL)
0RBI	RIBONUCLEASE BI(BINASE)
0RST	RIBONUCLEASE ST (STREPTOMYCES ERYTHREUS)
0RNT	RIBONUCLEASE T1-2(PRIME)-GUANYLIC ACID (ASPERGILLUS ORYZAE)
0SDE	FE-SUPEROXIDE DISMUTASE(ESCHERICHIA COLI)
0SDP	FE-SUPEROXIDE DISMUTASE(PSEUDOMONAS OVALIS)
0TT4	THIOREDOXIN REDUCTASE (BACTERIOPHAGE T4)
0FMT	INITIATOR TRANSFER RNA (E. COLI, F/MET)
0TA1	TRANSFER RNA (YEAST, ASP, A FORM)
0TA2	TRANSFER RNA (YEAST, ASP, B FORM)
0TR1	TRANSFER RNA (YEAST, PHE)
0MTS	METHIONYL TRANSFER RNA SYNTHETASE
0YPI	TRIOSE PHOSPHATE ISOMERASE (SACCHAROMYCES CEREVISIAE)
0GN5	GENE 5 DNA-UNWINDING PROTEIN (E. COLI)
0UTG	UTEROGLOBIN (RABBIT)
0TMV	VIRUS PROTEIN DISK (TOBACCO MOSAIC)

* NEW OR REPLACEMENT ENTRY SINCE OCT-84 NEWSLETTER

ORDER FORM (Please include a self-addressed label)

1. Name _____ Date _____

   Address _____ Telephone _____

   _____

   _____

2. Documentation desired (no charge).
   - ( ) Latest Newsletter
   - ( ) Introduction to The Protein Data Bank (January 1984)
   - ( ) Sources of Visual Aids for Macromolecular Structure (October 1984)
   - ( ) Atomic Coordinate and Bibliographic Entry Format Description for DATAPRTP and DATAPRFI (January 1985)
   - ( ) Current DATAPRTP Directory
   - ( ) Non-Standard Entries (Structure Factors) Format Description
     - ( ) NONST1TP and NONST1FI (April 1983)
     - ( ) NONST2TP and NONST2FI (January 1984)
     - ( ) NONST3TP and NONST3FI (January 1985)
   - ( ) Data Deposition form

3. Please send the following magnetic tape items (from Table 1). Each 1-tape item costs $184 (£153 from Cambridge). Each 2-tape item costs $225 (£188). Each 3-tape item costs $266 (£222). Domestic postage is included.

Item	Number of Tapes	Cost

Total _____

Special Instructions (to be completed for Brookhaven requests only). Please check the appropriate box.

( ) We are especially interested in the pending entries with the following Ident Codes: _____ _____ _____. Please delay shipment until the date _____ if any of these entries are expected to be available by that date.

( ) Normal order-will be processed as soon as possible.

4. Tape format desired (all tapes are unlabelled)

		Availability US	Availability UK
( )	9 track, 6250 cpi, EBCDIC	yes	yes
( )	9 track, 1600 cpi, EBCDIC	yes	yes
( )	9 track, 800 cpi, EBCDIC	yes	yes
( )	9 track, 6250 cpi, ASCII	yes	yes
( )	9 track, 1600 cpi, ASCII	yes	yes
( )	9 track, 800 cpi, ASCII	yes	yes

All tapes are distributed in blocked form with fixed record length and block size. Brookhaven normally uses a block size of 4800 characters. Please indicate here any difficulties this might cause.

5. Please send the following microfiche items (from Table 2). Each microfiche item costs $150 (£125), postage included. Correction fiche are free.

Item	Cost

Total _____

6. Please send the following printed listings. Each listing costs $71 (£59), postage included.

Ident Code (From Table 7)	Cost

Total _____

7. Foreign air mail postage for tapes from Brookhaven to destinations outside the U. S. and Canada or from Cambridge to destinations outside the United Kingdom. A postage surcharge of $20 (£17) is required per item.

Number of items x $20.00 (£17) = _____

8. Total charges

Magnetic tape charges (3 above)	_____
Microfiche charges (5 above)	_____
Printed listing charges (6 above)	_____
Foreign air mail postage charges (7 above)	_____
Total	_____

Method of Payment:

Cambridge: Cambridge prefers that no check is sent with order. Inclusion of purchase order is desirable but not mandatory.

Brookhaven: Brookhaven requires that either a check or written purchase order payable to Brookhaven National Laboratory be received before service is provided.

( ) check
( ) purchase order number _____

is ( ) enclosed
( ) sent separately

Please return to

Ms. F. C. Bernstein
Chemistry Department
Brookhaven National Laboratory
Upton, New York 11973 USA

or

Dr. S. Bellard
University Chemical Laboratory
Lensfield Road
Cambridge CB2 1EW, England

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