

# Sigma Proteins and Peptides FT-IR Spectral Library

## *Introduction*

The Sigma Proteins and Peptides Library consists of 747 FT-IR spectra of interest to the biochemical field. The spectra were originally acquired at 2 cm<sup>-1</sup> spectral resolution, and then mathematically deresolved when converted to Nicolet library format.

The spectra are listed in this document in alphabetical order by compound name. The index number of each spectrum appears to the left of the name. If you are using Nicolet OMNIC spectroscopy software, the molecular formula, CAS (Chemical Abstracts Services) registry number, when known, and the location number of the printed spectrum in *The Sigma Library of FT-IR Spectra* are available on-line. The Sigma location number is in the form:

<volume number> - <page number> <spectrum letter>

For example, the spectrum with the location number 1-234B refers to the second (B) spectrum on page 234 of Volume 1.

## **Abbreviations Used in Compound Names**

Since the compound names associated with the spectra are often very long, in many cases it has become necessary to abbreviate the full name of the substance. The table below defines the abbreviations used in the name field. The names given as immediate results of a search are further truncated to 33 characters. The sequential index in this manual or the associated data may be consulted for the full name.

<i>Abbreviation</i>	<i>Name</i>
T-BOC	t-Butoxycarbonyl
:BSA	Bovine Serum Albumin conjugate
CBZ	Carbobenzyloxy
CHA	Cyclohexylammonium
CLPH	Chlorophenyl
CNET	Cyanoethyl
DANSYL	5-Dimethylamino-1-naphthalenesulfonyl
DCHA	Dicyclohexylammonium
DDZ	3,5-Dimethoxy-a,a-dimethylbenzyloxycarbonyl
DMT	4,4'-Dimethoxytrityl
2,4-DNP	2,4-Dinitrophenyl

DNPYR	3,5-Dinitro-2-pyridyl
FMOC	9-Fluorenylmethoxycarbonyl
IPREN	Isopropylidene
MESYL	Methanesulfonyl
MSOC	2-(Methanesulfonyl)ethoxycarbonyl
MTH	Methylthiohydantoin
PTH	Phenylthiohydantoin
TFA	Trifluoroacet(ate/yl)
TOSYL	p-Toluenesulfonyl

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In addition to the above abbreviations, occasionally atomic symbols are used in place of element names: e.g. CL = chloro- or chloride. Also, Greek letters (alpha, beta, gamma,...,omega) are given as their lower-case Roman equivalents (a, b, g,...,w), and the standard abbreviations are used for amino acids in polypeptide names.

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# Sigma Proteins and Peptides FT-IR Spectral Library

## Index of Compounds

<u>No.</u>	<u>Compound Description</u>	<u>No.</u>	<u>Compound Description</u>
509	4-Phenylazobenzoyloxycarbonyl-L-pro-L-leu-gly-L-pro-D-arginine	713	b-Lactoglobulin B from bovine milk
652	a-Casein from bovine milk	709	b-Lactoglobulin from bovine milk
83	a-L-Aspartyl-L-phenylalanine	710	b-Lactoglobulin from bovine milk 1x
275	a-L-Glutamyl-L-alanine	711	b-Lactoglobulin from bovine milk 3x
277	a-L-Glutamyl-L-valine	429	b-Lipotropin 88-91 human
278	a-L-Glutamyl-L-valyl-L-phenylalanine	427	b-Lipotropin fragment 1-10 porcine
276	a-L-Glutamylglycyl-L-phenylalanine	428	b-Lipotropin fragment 39-45
705	a-Lactalbumin from human milk	112	Bombesin; pGlu-Gln-Arg-Leu-Gly-Asn-Gln-Trp-Ala-Val-Gly-His-Leu-Met-NH <sub>2</sub>
703	a-Lactalbumin type I from bovine milk	113	Bovine adrenal medulla docosapeptide
704	a-Lactalbumin type III from bovine milk	114	Bovine adrenal medulla dodecapeptide
706	a-Lactalbumin, bovine-carboxymethyl	121	Bradykinin potentiator B
707	a-Lactalbumin, bovine-rhodamine B isothiocyanate	122	Bradykinin potentiator C
468	a-Neoeendorphin porcine	115	Bradykinin triacetate
636	Actin from chicken gizzard	116	Bradykinin, des-arg(9)
637	Acyl carrier protein from E. coli	117	Bradykinin, des-arg(9),[leu(8)]-
10	Adrenocorticotrophic hormone, porcine	118	Bradykinin, met,lys-
638	Albumin bovine fraction v	119	Bradykinin, tyr-, acetate salt
639	Albumin bovine fraction v	120	Bradykinin, [tyr(8)]-
640	Albumin chicken egg	659	C Reactive protein from limulus polyphemus 60% prot
641	Albumin, human fraction v	658	C Reactive protein from limulus polyphemus 85% prot
642	Alfalfa hydrolysate	649	Carboxypeptidase inhibitor from potato tubers
54	Amastatin .HCl; [(2S,3R)-3-Amino-2-hydroxy-5-methylhexanoyl]-L-valyl-L-valyl-L-aspartic acid .HCl	651	Casein purified
57	Angiotensin I, acetate salt, human form	650	Casein technical from bovine milk
58	Angiotensin I, des-asp(1), acetate salt	231	Chymostatin
59	Angiotensin I, [val(5)]-	653	Conalbumin type I
60	Angiotensin II, acetate salt, human form	654	Conalbumin type II from chicken egg white
61	Angiotensin II, [asn(1),val(5)]-, acetate salt	655	Conalbumin type III crude
62	Angiotensin II, [sar(1),ala(8)]-, acetate salt	656	Conalbumin type IV crude
63	Angiotensin II, [sar(1),gly(8)]-, acetate salt	657	Conalbumin type V
64	Angiotensin II, [sar(1),ile(8)]-, acetate salt	715	Concanavalin A type IV
65	Angiotensin II, [sar(1),leu(8)]-, acetate salt	232	Cyclo-(L-histidyl-L-phenylalanyl)
67	Angiotensin II, [sar(1),thr(8)]-, acetate salt	233	Cyclo-(L-histidyl-L-prolyl)
66	Angiotensin II, [val(5)]-, acetate salt	234	Cyclo-(L-leucylglycyl)
68	Angiotensin III, acetate salt	235	Cyclo-(L-phenylalanyl-L-seryl)
69	Angiotensin III, [val(4)]-, acetate salt	662	Cytochrome C type IX from porcine heart
70	Angiotensin-converting enzyme inhibitor	661	Cytochrome C type VI
71	Antipain .2HCl	663	Cytochrome C, acid modified from horse heart
72	Arg-arg-leu-ile-glu-asp-asn-glu-tyr-thr-ala-arg-gly	664	Cytochrome H from helix pomatia digestive glands
643	Asialofetuin type I from fetal calf serum	660	Cytochrome-C type III
644	Asialofetuin type II from fetal calf serum	11	D-Alanyl-D-alanine
647	Avidin fluorescein isothiocyanate labelled	14	D-Alanyl-D-alanyl-D-alanine
645	Avidin from egg white	27	D-Alanylglycylglycine
646	Avidin from egg white	403	D-Leucyl glycylglycine
648	Avidin-succinyl	407	D-Leucyl-D-leucine
33	b-Alanyl-DL-leucine	421	D-Leucyl-L-tyrosine
51	b-Alanyl-DL-valine	399	D-Leucylglycine
48	b-Alanyl-L-tryptophan .2H <sub>2</sub> O	435	D-Lysyl-L-tyr-D-try-D-try-L-phenylalaninamide, diacetate salt
126	b-Casomorphin, bovine, acetate salt	484	D-Pantethine anhydrous
130	b-Casomorphin, des-tyr(1), bovine, acetate salt	508	D-Phenylalanyl-L-valine p-nitroanilide
127	b-Casomorphin, fragment 1-3, bovine	589	D-Tryptophyl-L-ala-L-tryptophyl-D-phenylalaninamide
128	b-Casomorphin, fragment 1-3, bovine.HCl	628	D-Valyl-L-leu-L-lysine p-nitroanilide .2HCl
129	b-Casomorphin, fragment 1-5, bovine	627	D-Valyl-L-leu-L-lysine-5-amidoisophthalic acid dimethyl ester.2HCl
712	b-Lactoglobulin A from bovine milk	12	DL-Alanyl-DL-alanine

<u>No.</u>	<u>Compound Description</u>	<u>No.</u>	<u>Compound Description</u>
24	DL-Alanyl-DL-asparagine	686	Gluten, enzymatic hydrolysate from corn
34	DL-Alanyl-DL-leucine	687	Glycophorin from human blood, type B negative
36	DL-Alanyl-DL-leucylglycine	688	Glycoprotein, A1-acid bovine
38	DL-Alanyl-DL-methionine	689	Glycoprotein, A1-acid dog
40	DL-Alanyl-DL-norvaline	690	Glycoprotein, A1-acid human
41	DL-Alanyl-DL-phenylalanine	294	Glycyl-b-alanine
45	DL-Alanyl-DL-serine	295	Glycyl-D-alanine
52	DL-Alanyl-DL-valine	302	Glycyl-D-asparagine
25	DL-Alanylglycine	305	Glycyl-D-aspartic acid
28	DL-Alanylglycylglycine	331	Glycyl-D-leucine
124	DL-g-Carboxyglutamic acid	341	Glycyl-D-phenylalanine
406	DL-Leucyl glycyl-DL-phenylalanine	357	Glycyl-D-serine
396	DL-Leucyl-DL-alanine	360	Glycyl-D-threonine
408	DL-Leucyl-DL-leucine	365	Glycyl-D-valine
414	DL-Leucyl-DL-phenylalanine	299	Glycyl-DL-a-aminobutyric acid
422	DL-Leucyl-DL-tyrosine	296	Glycyl-DL-alanine
424	DL-Leucyl-DL-valine	303	Glycyl-DL-asparagine
400	DL-Leucylglycine	306	Glycyl-DL-aspartic acid
404	DL-Leucylglycylglycine	332	Glycyl-DL-leucine
238	Dnpyr-glycylglycine	335	Glycyl-DL-leucyl-DL-alanine
665	Edestin from hemp seed	339	Glycyl-DL-norleucine
666	Egg whites dried	340	Glycyl-DL-norvaline
239	Elastatinal	342	Glycyl-DL-phenylalanine
667	Elastin	358	Glycyl-DL-serine
668	Elastin-congo red	361	Glycyl-DL-threonine
669	Elastin-orcein	366	Glycyl-DL-valine
240	Ellipticine	298	Glycyl-g-aminobutyric acid
244	Enkephalin, [D-ala(2),N-me-phe(4),met(O)5-ol]-	297	Glycyl-L-alanyl-L-alanine
248	Enkephalinamide, des-tyr(1),[D]met(2),pro(5)]-, .HCl	300	Glycyl-L-arginine 4-methoxy-b-naphthylamide .2HCl
249	Epiamastatin.HCl	301	Glycyl-L-arginine p-nitroanilide, acetate salt
250	Epibestatin.HCl	307	Glycyl-L-asp-L-asp-L-asp-L-asp-L-lysine b-naphthylamide
670	Factor IX from bovine plasma	304	Glycyl-L-asparagine
671	Fetuin type III	308	Glycyl-L-glutamic acid
672	Fetuin type IV	325	Glycyl-L-histidine
673	Fibrin	326	Glycyl-L-histidine.HCl
674	Fibrinogen type I-S: from bovine plasma	327	Glycyl-L-histidyl-L-arginyl-L-proline, acetate salt
675	Fibrinogen, human (fraction I) from human plasma	329	Glycyl-L-histidyl-L-lysine, acetate salt
676	Fibronectin from bovine plasma	328	Glycyl-L-histidylglycine
677	Folate binding protein from bovine milk	330	Glycyl-L-isoleucine
279	g-L-Glutamyl-L-glutamic acid	333	Glycyl-L-leucine
280	g-L-Glutamyl-L-glutamine	334	Glycyl-L-leucineamide.HCl
281	g-L-Glutamyl-L-histidine	336	Glycyl-L-leucyl-L-tyrosine
282	g-L-Glutamyl-L-leucine	337	Glycyl-L-lysine.HCl
283	g-L-Glutamyl-L-phenylalanine	338	Glycyl-L-methionine
284	g-L-Glutamyl-L-tyrosine	343	Glycyl-L-phenylalanine
682	Gamma-globulin chicken	344	Glycyl-L-phenylalanine b-naphthylamide
684	Gamma-globulin guinea pig	347	Glycyl-L-phenylalanyl-L-phenylalanine
270	Gastrin, porcine entrail mucosa	345	Glycyl-L-phenylalanyl-L-alanine
678	Gelatin from porcine skin	346	Glycyl-L-phenylalanyl-L-arginine .2HCl
679	Gliadin crude	348	Glycyl-L-proline
680	Globin from human hemoglobin	349	Glycyl-L-proline 4-methoxy-b-naphthylamide
683	Globulin cucurbita pepo	350	Glycyl-L-proline 4-methoxy-b-naphthylamide.HCl
685	Globulin human cohn fraction III	351	Glycyl-L-proline p-nitroanilide
681	Globulins cohn fr. IV bovine	353	Glycyl-L-prolyl-glycylglycine
271	Glucagon	352	Glycyl-L-prolyl-L-arginyl-L-proline, diacetate salt
272	Glucan from bakers yeast	354	Glycyl-L-prolyl-L-hydroxyproline, acetate salt
291	Glutathione, oxidized form	355	Glycyl-L-prolyl-L-leucine b-naphthylamide .HCl
292	Glutathione, oxidized form	359	Glycyl-L-serine
293	Glutathione, oxidized form, disodium salt	362	Glycyl-L-threonine
290	Glutathione, reduced form	363	Glycyl-L-tryptophan

<u>No.</u>	<u>Compound Description</u>	<u>No.</u>	<u>Compound Description</u>
364	Glycyl-L-tyrosine	35	L-Alanyl-L-leucine
309	Glycylglycinamide.HCl	37	L-Alanyl-L-lysine.HCl
310	Glycylglycine	39	L-Alanyl-L-methionine
311	Glycylglycine ethyl ester.HCl	42	L-Alanyl-L-phenylalanine
319	Glycylglycyl-D-leucine	43	L-Alanyl-L-proline
312	Glycylglycyl-L-alanine	44	L-Alanyl-L-prolylglycine
313	Glycylglycyl-L-arginine, acetate salt	46	L-Alanyl-L-serine
318	Glycylglycyl-L-isoleucine	47	L-Alanyl-L-threonine
320	Glycylglycyl-L-leucine	49	L-Alanyl-L-tryptophan
321	Glycylglycyl-L-phenylalanine	50	L-Alanyl-L-tyrosine
323	Glycylglycyl-L-tyrosyl-L-arginine	53	L-Alanyl-L-valine
324	Glycylglycyl-L-valine	26	L-Alanylglycine
314	Glycylglycylglycine	30	L-Alanylglycyl-L-seryl-L-glutamic acid
315	Glycylglycylglycylglycine	29	L-Alanylglycylglycine
316	Glycylglycylglycylglycylglycine	73	L-Arg-gly-L-pro-L-phenylalanyl-L-prolyl-L-isoleucine
317	Glycylglycylglycylglycylglycylglycine	75	L-Arginyl-L-arginine 4-methoxy-b-naphthylamide
322	Glycylglycylsarcosine	76	L-Arginyl-L-arginine b-naphthylamide .3HCl
356	Glycylsarcosine	77	L-Arginyl-L-aspartic acid
691	Gonadotropin from pregnant mares serum	84	L-Aspartyl-L-phenylalanine methyl ester
692	Gonadotropin human menopausal	81	L-b-Aspartylglycine
693	Haptoglobin human, from pooled plasma	125	L-Carnosine; b-Alanyl-L-histidine
694	Hemoglobin bovine	273	L-Glutamyl-L-alanyl-L-glutamic acid
695	Hemoglobin dog	274	L-Glutamyl-L-alanyl-L-glutamyl-L-asparagine
369	Hexa-L-tyrosine	374	L-Histidyl-L-alanine
371	Hippuryl-L-histidyl-L-leucine	376	L-Histidyl-L-leucine
372	Hippuryl-L-histidyl-L-leucine, acetate salt	377	L-Histidyl-L-lysine .HBr hemicarbonat salt
373	Hippuryl-L-lysine	378	L-Histidyl-L-phenylalanine
698	Histone type II-A from calf thymus	379	L-Histidyl-L-serine
697	Histone type II-as	380	L-Histidyl-L-tyrosine
696	Histone type II-S	375	L-Histidylglycine
699	Histone type III-S from calf thymus	381	L-Homocarnosine
700	Histone type VI-S from calf thymus	394	L-Leucine b-naphthylamide.HCl
382	Hydra peptide	395	L-Leucyl-b-alanine
385	Insulin chain A, oxidized from bovine insulin	409	L-Leucyl-D-leucine
386	Insulin chain B, oxidized from bovine insulin	402	L-Leucyl-glycine-b-naphthylamide
384	Insulin from bovine pancreas	397	L-Leucyl-L-alanine
701	Interferon human, lymphoblastoid	398	L-Leucyl-L-arginine
387	Isotocin	410	L-Leucyl-L-leucine
388	Kemptide	411	L-Leucyl-L-leucine acetate
389	Kentsin	412	L-Leucyl-L-leucyl-L-leucine
390	Kyotorphin	413	L-Leucyl-L-methionine
391	Kyotorphin, [D-arg(2)]-, acetate salt	415	L-Leucyl-L-phenylalanine
78	L-a-Aspartyl-L-alanine	416	L-Leucyl-L-proline .HCl
79	L-a-Aspartyl-L-alanine b-naphthylamide	417	L-Leucyl-L-proline trifluoroacetate
82	L-a-Aspartyl-L-phenylalaninamide	419	L-Leucyl-L-ser-p-nitro-L-phe-L-norleu-L-ala-L-leu methyl ester
74	L-a-Aspartyl-L-seryl-L-aspartyl-L-prolyl-L-arginine	418	L-Leucyl-L-serine
80	L-a-Aspartylglycine	420	L-Leucyl-L-tryptophan
22	L-Alanyl-alanyl-L-phenylalanine chloromethyl ketone	423	L-Leucyl-L-tyrosine
13	L-Alanyl-L-alanine	425	L-Leucyl-L-valine
15	L-Alanyl-L-alanyl-L-alanine methyl ester acetate	401	L-Leucylglycine
16	L-Alanyl-L-alanyl-L-alanyl-L-alanine	405	L-Leucylglycylglycine
17	L-Alanyl-L-alanyl-L-alanyl-L-alanyl-L-alanine	430	L-Lysine L-glutamate
18	L-Alanyl-L-alanyl-L-alanyl-L-alanyl-L-alanyl-L-alanine	431	L-Lysyl-L-alanine .2HBr
21	L-Alanyl-L-alanyl-L-phenyl-alanine p-nitroanilide	432	L-Lysyl-L-alanine 4-methoxy-b-naphthylamide .2HBr
20	L-Alanyl-L-alanyl-L-phenylalanine 4-methoxy-b-naphthylamide	433	L-Lysyl-L-alanine b-naphthylamide
19	L-Alanyl-L-alanyl-L-phenylalanine 7-amido-4-methylcoumarin	434	L-Lysyl-L-aspartic acid
23	L-Alanyl-L-alanyl-L-valyl-L-alanine p-nitroanilide	436	L-Lysyl-L-cys-L-thr-L-cys-L-cys-L-alanine
31	L-Alanyl-L-histidine	437	L-Lysyl-L-glutamyl-L-glutamyl-L-alanyl-L-glutamic acid
32	L-Alanyl-L-isoleucine	442	L-Lysyl-L-leucine .HBr

<u>No.</u>	<u>Compound Description</u>	<u>No.</u>	<u>Compound Description</u>
441	L-Lysyl-L-leucine acetate	547	L-Prolyl-L-valine
443	L-Lysyl-L-lysine .2HCl	535	L-Prolylglycylglycine
444	L-Lysyl-L-phenylalanine .2HBr	537	L-Prolylhydroxy-L-proline
445	L-Lysyl-L-phenylalanine .HCl	549	L-Pyroglutamyl-L-asparaginyln-glycine
446	L-Lysyl-L-proline-4-methoxy-b-naphthylamide	550	L-Pyroglutamyl-L-histidyl-glycinamide
438	L-Lysyl-L-tryptophyl-L-lysine	552	L-Pyroglutamyl-L-histidyl-L-prolinamide
447	L-Lysyl-L-valine .2HBr	553	L-Pyroglutamyl-L-histidyl-L-proline
448	L-Lysyl-L-valine .HCl	551	L-Pyroglutamyl-L-histidylglycine, acetate salt
439	L-Lysylglycine .2HBr	554	L-Pyroglutamyl-L-lysyl-L-tryptophyl-alanyl-L-proline
440	L-Lysylglycine .HCl	559	L-Seryl-L-alanine
451	L-Methionyl-L-alanine	561	L-Seryl-L-leucine
452	L-Methionyl-L-alanyl-L-serine	562	L-Seryl-L-methionine
453	L-Methionyl-L-asparagine	563	L-Seryl-L-phenylalanine
454	L-Methionyl-L-glutamic acid	564	L-Seryl-L-tyrosine
456	L-Methionyl-L-leucine	565	L-Seryl-L-tyrosine 4-methoxy-b-naphthylamide
457	L-Methionyl-L-leucyl-L-phenylalanine, acetate salt	566	L-Seryl-L-tyrosine b-naphthylamide
458	L-Methionyl-L-lysine, formate salt	560	L-Serylglycine
459	L-Methionyl-L-methionine	582	L-Threonyl-L-valyl-L-leucine .HCl
460	L-Methionyl-L-phenylalanine	593	L-Tryptophyl-his-try-leu-glu-leu-lys-pro-gly-glu-pro-met-tyr
461	L-Methionyl-L-proline	588	L-Tryptophyl-L-ala-gly-gly-L-asp-L-ala-L-ser-gly-L-glutamic acid
462	L-Methionyl-L-serine	587	L-Tryptophyl-L-alanine
463	L-Methionyl-L-tyrosyl-L-phenylalaninamide	590	L-Tryptophyl-L-glutamic acid
464	L-Methionyl-L-valine	594	L-Tryptophyl-L-leucine
455	L-Methionylglycine	595	L-Tryptophyl-L-methionyl-L-aspartyl-L-phenylalaninamide .HCl
479	L-Ornithine, L-aspartate salt	596	L-Tryptophyl-L-phenylalanine
480	L-Ornithyl-L-aspartic acid dipeptide	597	L-Tryptophyl-L-tryptophan
489	L-Phenylalanyl-L-alanine	598	L-Tryptophyl-L-tyrosine
490	L-Phenylalanyl-L-arginine b-naphthylamide .2HCl	591	L-Tryptophylglycine
495	L-Phenylalanyl-L-leucinamide .HBr	592	L-Tryptophylglycylglycine
496	L-Phenylalanyl-L-leucinamide .HCl	601	L-Tyrosyl-D-ala-gly-N-methyl-L-phe-2-hydroxyethylamide
497	L-Phenylalanyl-L-leucine	600	L-Tyrosyl-D-alanyl-L-phenylalanyl-L-methioninamide
500	L-Phenylalanyl-L-leucyl-L-glutamyl-L-glutamyl-L-isoleucine	609	L-Tyrosyl-D-try-L-ala-L-try-D-phenylalaninamide
499	L-Phenylalanyl-L-leucyl-L-glutamyl-L-glutamyl-L-leucine	610	L-Tyrosyl-D-try-L-ala-L-try-D-phenylalanine methylamide
501	L-Phenylalanyl-L-leucyl-L-glutamyl-L-glutamyl-L-valine	605	L-Tyrosyl-L-glutamic acid
498	L-Phenylalanyl-L-leucyl-L-arginyl-L-phenylalaninamide	607	L-Tyrosyl-L-leucine
502	L-Phenylalanyl-L-methionine	608	L-Tyrosyl-L-phenylalanine
503	L-Phenylalanyl-L-methionyl-L-arginyl-L-phenylalaninamide	611	L-Tyrosyl-L-tyrosine
505	L-Phenylalanyl-L-pro-L-ala-L-methionine 4-methoxy-b-naphthylamide	612	L-Tyrosyl-L-tyrosyl-L-tyrosine
504	L-Phenylalanyl-L-proline	613	L-Tyrosyl-L-tyrosyl-L-tyrosine methyl ester
506	L-Phenylalanyl-L-ser-L-try-gly-L-ala-L-glu-gly-L-glu-L-arginine	614	L-Tyrosyl-L-valine
507	L-Phenylalanyl-L-tyrosine	606	L-Tyrosylglycine
491	L-Phenylalanylglycine	604	L-Tyrosylglycyl-D-tryptophyl-L-phe-D-phenylalaninamide
494	L-Phenylalanylglycyl-L-phenylalanylglycine	602	L-Tyrosylglycylglycine
492	L-Phenylalanylglycylglycine	603	L-Tyrosylglycylglycyl-L-phe-L-leu-L-arg-L-lys-L-arginine
493	L-Phenylalanylglycylglycyl-L-phenylalanine	615	L-Valyl-L-alanine p-nitroanilide, acetate salt
532	L-Proline b-naphthylamide .HCl	616	L-Valyl-L-alanyl-L-alanyl-L-phenylalanine
533	L-Prolyl-L-alanine	617	L-Valyl-L-aspartic acid
534	L-Prolyl-L-arginine 4-methoxy-b-naphthylamide	618	L-Valyl-L-glutamic acid
536	L-Prolyl-L-his-L-pro-L-phe-L-his-L-phe-L-phe-L-val-L-tyr-L-lysine	619	L-Valyl-L-glutamine
538	L-Prolyl-L-isoleucine	620	L-Valyl-L-glutamyl-L-glutamyl-L-alanyl-L-glutamic acid
539	L-Prolyl-L-leucine	621	L-Valyl-L-glutamyl-L-seryl-L-seryl-L-lysine
540	L-Prolyl-L-leucylglycinamide	625	L-Valyl-L-his-L-leu-L-thr-L-pro-L-val-L-glu-L-lysine
541	L-Prolyl-L-methionine	626	L-Valyl-L-leucine
543	L-Prolyl-L-phenylalanine	629	L-Valyl-L-phenylalanine
542	L-Prolyl-L-phenylalanine amide .HCl	630	L-Valyl-L-proline .HCl
544	L-Prolyl-L-phenylalanyl-glycyl-L-lysine, acetate salt	631	L-Valyl-L-serine
545	L-Prolyl-L-tryptophan	632	L-Valyl-L-threonine
546	L-Prolyl-L-tyrosine	633	L-Valyl-L-tryptophan

<u>No.</u>	<u>Compound Description</u>	<u>No.</u>	<u>Compound Description</u>
634	L-Valyl-L-tyrosine	147	N-CBZ-b-ala-L-phenylalanine
635	L-Valyl-L-tyrosyl-L-valine	151	N-CBZ-b-ala-L-valine
622	L-Valylglycyl-L-aspartyl-L-glutamic acid	131	N-CBZ-b-alanyl-b-alanine
624	L-Valylglycyl-L-seryl-L-glutamic acid	132	N-CBZ-b-alanyl-L-alanine
623	L-Valylglycylglycine	138	N-CBZ-DL-ala-glycine
702	Lactalbumin	158	N-CBZ-glycyl-b-alanine
392	Lactalbumin, enzymatic hydrolysate	159	N-CBZ-glycyl-L-alanine
708	Lactoferrin from human milk	176	N-CBZ-glycyl-L-isoleucine
714	Lectin bauhinia purpurea	177	N-CBZ-glycyl-L-leucine
716	Lectins from triticum vulgare	178	N-CBZ-glycyl-L-methionine
241	Leucine enkephalin, acetate salt	179	N-CBZ-glycyl-L-norvaline
242	Leucine enkephalin, formate salt	181	N-CBZ-glycyl-L-phenylalaninamide
247	Leucine enkephalinamide, des-tyr(1),[D-ala(2)], acetate salt	180	N-CBZ-glycyl-L-phenylalanine
245	Leucine enkephalinamide, [D-ala(2)], acetate salt	185	N-CBZ-glycyl-L-pro-gly-gly-L-pro-L-alanine
426	Leupeptin synthetic hemi-sulfate	183	N-CBZ-glycyl-L-pro-L-arginine p-nitroanilide, acetate salt
449	Mastoparan	184	N-CBZ-glycyl-L-pro-L-citrulline p-nitroanilide
450	Melittin from bee venom	186	N-CBZ-glycyl-L-pro-L-leu-gly-L-proline
717	Metallothionein from horse kidney	182	N-CBZ-glycyl-L-proline
243	Methionine enkephalin, acetate salt	187	N-CBZ-glycyl-L-tyrosine
246	Methionine enkephalinamide, [D-ala(2)], acetate salt	188	N-CBZ-glycyl-L-valine
465	Methoxysuccinyl-L-ala-L-ala-L-pro-L-valine p-nitroanilide	160	N-CBZ-glycylglycine
718	Monellin from dioscoreophyllum cumminsii	161	N-CBZ-glycylglycine p-nitrophenyl ester
467	Morphiceptin .HCl	172	N-CBZ-glycylglycyl-L-phenylalanine
719	Mucin type I	162	N-CBZ-glycylglycyl-L-alanine
720	Mucin type II	163	N-CBZ-glycylglycyl-L-arginine 4-methoxy-b-naphthylamide .HCl
721	Myoglobin type I from horse skeletal muscle	164	N-CBZ-glycylglycyl-L-arginine b-naphthylamide .HCl
722	Myoglobin type III from horse heart	166	N-CBZ-glycylglycyl-L-isoleucine
723	Myosin light chain from chicken muscle	167	N-CBZ-glycylglycyl-L-leucine
724	Myosin light chains from rabbit muscle	168	N-CBZ-glycylglycyl-L-leucine p-nitroanilide
86	N(a)-Benzoyl-L-arg-gly-L-phe-L-proline 4-methoxy-b-naphthylamide .HCl	169	N-CBZ-glycylglycyl-L-methionine
154	N(a)-CBZ-L-arg-L-arginine 4-methoxy-b-naphthylamide	170	N-CBZ-glycylglycyl-L-norleucine
155	N(a)-CBZ-L-glu-glycine	171	N-CBZ-glycylglycyl-L-norvaline
266	N-(3-(2-Furyl)acryloyl)-L-alanyl-L-phenylalaninamide	173	N-CBZ-glycylglycyl-L-proline
268	N-(3-(2-Furyl)acryloyl)-L-phe-gly-glycine	174	N-CBZ-glycylglycyl-L-serine
269	N-(3-(2-Furyl)acryloyl)-L-phe-L-phenylalanine	175	N-CBZ-glycylglycyl-L-valine
267	N-(3-(2-Furyl)acryloyl)glycyl-L-leucinamide	165	N-CBZ-glycylglycylglycine
556	N-(a-Rhamnopyranosyloxy-hydroxyphosphinyl)-L-leu-L-tryptophan	141	N-CBZ-L-ala-gly-glycine
55	N-(p-Aminobenzoyl)-L-glutamic acid	139	N-CBZ-L-ala-glycine methyl ester
237	N-2,4-Dnp-L-pro-L-glutaminy-gly-L-ile-L-ala-gly-L-glu-D-arginine	135	N-CBZ-L-ala-L-arg-L-arginine 4-methoxy-b-naphthylamide
9	N-Acetyl-D-phenylalanyl-L-tyrosine	136	N-CBZ-L-ala-L-glutamic acid
1	N-Acetyl-L-alanyl-L-alanyl-L-alanine	142	N-CBZ-L-ala-L-isoleucine
2	N-Acetyl-L-alanyl-L-alanyl-L-alanine methyl ester	144	N-CBZ-L-ala-L-leucine
3	N-Acetyl-L-alanyl-L-alanyl-L-alanine p-nitroanilide	145	N-CBZ-L-ala-L-methionine
4	N-Acetyl-L-alanyl-L-alanyl-L-alanyl-L-alanine	146	N-CBZ-L-ala-L-norvaline
5	N-Acetylglycyl-L-leucine	148	N-CBZ-L-ala-L-phenylalanine
6	N-Acetylglycyl-L-lysine methyl ester, acetate salt	149	N-CBZ-L-ala-L-proline
7	N-Acetylmuramyl-D-alanyl-D-isoglutamine	150	N-CBZ-L-ala-L-serine methyl ester
8	N-Acetylmuramyl-L-alanyl-L-isoglutamine	152	N-CBZ-L-ala-L-valine
87	N-Benzoyl-L-phenylalanyl-L-valyl-L-arginine 7-amido-4-methylcoumarin	153	N-CBZ-L-ala-L-valine methyl ester
88	N-Benzoyl-L-phenylalanyl-L-valyl-L-arginine p-nitroanilide	134	N-CBZ-L-alanyl-L-a-aminobutyric acid
89	N-Benzoyl-L-prolyl-L-phenylalanyl-L-arginine p-nitroanilide .HCl	133	N-CBZ-L-alanyl-L-alanine
90	N-Benzoyl-L-tyrosyl-p-aminobenzoic acid, Na salt	156	N-CBZ-L-glu-L-phenylalanine
91	N-Benzoyl-L-valylglycyl-L-arginine p-nitroanilide .HCl	157	N-CBZ-L-glu-L-tyrosine
140	N-CBZ-b-ala-gly-glycine	189	N-CBZ-L-his-glycine
137	N-CBZ-b-ala-glycine	190	N-CBZ-L-his-p-nitro-L-phe-L-phenylalanine methyl ester
143	N-CBZ-b-ala-L-leucine	191	N-CBZ-L-isoleucyl-L-alanine
		194	N-CBZ-L-isoleucyl-L-isoleucine
		195	N-CBZ-L-isoleucyl-L-leucine
		196	N-CBZ-L-isoleucyl-L-methionine

<u>No.</u>	<u>Compound Description</u>	<u>No.</u>	<u>Compound Description</u>
197	N-CBZ-L-isoleucyl-L-phenylalanine	512	N-Phthalylglycyl-a-DL-alanine
198	N-CBZ-L-isoleucyl-L-proline	511	N-Phthalylglycyl-b-alanine
199	N-CBZ-L-isoleucyl-L-valine	513	N-Phthalylglycyl-DL-a-aminobutyric acid
192	N-CBZ-L-isoleucylglycine	518	N-Phthalylglycyl-DL-leucine
193	N-CBZ-L-isoleucylglycylglycine	520	N-Phthalylglycyl-DL-methionine
200	N-CBZ-L-leucyl-L-alanine methyl ester	521	N-Phthalylglycyl-DL-norleucine
203	N-CBZ-L-leucyl-L-leucine methyl ester	523	N-Phthalylglycyl-DL-serine
204	N-CBZ-L-leucyl-L-tyrosinamide	525	N-Phthalylglycyl-DL-tryptophan
205	N-CBZ-L-leucyl-L-tyrosine	526	N-Phthalylglycyl-DL-valine
201	N-CBZ-L-leucylglycine	516	N-Phthalylglycyl-glycine
202	N-CBZ-L-leucylglycine methyl ester	515	N-Phthalylglycyl-L-glutamic acid
206	N-CBZ-L-methionylglycine ethyl ester	517	N-Phthalylglycyl-L-isoleucine allo free
207	N-CBZ-L-phenylalanine b-naphthyl ester	519	N-Phthalylglycyl-L-leucine
212	N-CBZ-L-phenylalanyl-L-methionine	522	N-Phthalylglycyl-L-proline
208	N-CBZ-L-phenylalanyl-L-alanine	524	N-Phthalylglycyl-L-serine
209	N-CBZ-L-phenylalanyl-L-arginine 7-amido-4-methylcoumarin	578	N-Succinyl-gly-L-prol-L-leu-gly-L-proline 7-amido-4-methylcoumarin
211	N-CBZ-L-phenylalanyl-L-leucine	577	N-Succinyl-gly-L-proline 7-amido-4-methylcoumarin
210	N-CBZ-L-phenylalanyl-glycine	574	N-Succinyl-L-ala-L-ala-L-phenylalanine 7-amido-4-methylcoumarin
215	N-CBZ-L-prolyl-D-leucine	572	N-Succinyl-L-ala-L-ala-L-alanine 7-amido-4-methylcoumarin
214	N-CBZ-L-prolyl-L-ala-gly-L-proline 4-methoxy-b-naphthalamide	573	N-Succinyl-L-ala-L-ala-L-alanine p-nitroanilide
213	N-CBZ-L-prolyl-L-alanine	575	N-Succinyl-L-ala-L-ala-L-valine p-nitroanilide
217	N-CBZ-L-prolyl-L-leucyl-glycinamide	576	N-Succinyl-L-ala-L-pro-L-alanine 7-amido-4-methylcoumarin
216	N-CBZ-L-prolyl-L-leucyl-glycine	580	N-Succinyl-L-leu-L-leu-L-val-L-tyrosine 7-amido-4-methylcoumarin
218	N-CBZ-L-prolyl-L-phenylalanine	93	N-t-BOC-b-ala-L-try-L-met-b-benzyl-L-asp-L-phenylalaninamide
219	N-CBZ-L-valyl-L-alanine methyl ester	92	N-t-BOC-b-ala-L-try-L-met-L-aspartyl-L-phenylalaninamide
224	N-CBZ-L-valyl-L-leucine	109	N-t-BOC-D-valyl-L-leucine
225	N-CBZ-L-valyl-L-leucine methyl ester	99	N-t-BOC-gly-L-try-L-met-b-benzyl-L-asp-L-phenylalaninamide
226	N-CBZ-L-valyl-L-phenylalanine	98	N-t-BOC-glycyl-L-proline
227	N-CBZ-L-valyl-L-phenylalanine methyl ester	94	N-t-BOC-L-glutamyl-L-glutamyl-L-isoleucine methyl ester
228	N-CBZ-L-valyl-L-tyrosine methyl ester	95	N-t-BOC-L-glutamyl-L-glutamyl-L-leucine methyl ester
220	N-CBZ-L-valylglycine ethyl ester	96	N-t-BOC-L-glutamyl-L-glutamyl-L-valine methyl ester
221	N-CBZ-L-valylglycine methyl ester	97	N-t-BOC-L-glutamyl-L-lysyl-L-lysine 7-amido-4-methylcoumarin
222	N-CBZ-L-valylglycyl-L-arginine p-nitroanilide, acetate salt	100	N-t-BOC-L-ile-L-glu-gly-L-arginine 7-amido-4-methylcoumarin
223	N-CBZ-L-valylglycylglycine benzyl ester	101	N-t-BOC-L-methionyl-L-aspartyl-L-phenylalaninamide
229	N-Chloroacetyl-glycylglycine	102	N-t-BOC-L-methionyl-L-leucyl-L-phenylalanine
251	N-Formyl-L-alanyl-glycyl-L-seryl-L-glutamic acid	103	N-t-BOC-L-norleucyl-L-leucyl-L-phenylalanine
254	N-Formyl-L-methionyl-L-phenylalanine	104	N-t-BOC-L-phe-D-leu-L-phe-D-leu-L-phenylalanine
252	N-Formyl-L-methionyl-L-alanine	105	N-t-BOC-L-phe-L-ser-L-arginine 7-amido-4-methylcoumarin
253	N-Formyl-L-methionyl-L-leu-L-phenylalanine	106	N-t-BOC-L-prolyl-L-proline
256	N-Formyl-L-methionyl-L-leu-L-phenylalanine benzyl ester	107	N-t-BOC-L-prolyl-L-prolyl-L-prolyl-L-proline
255	N-Formyl-L-methionyl-L-leu-L-phenylalanine benzylamide	108	N-t-BOC-L-try-L-met-L-asp-L-phenylalaninamide
257	N-Formyl-L-methionyl-L-leu-L-phenylalanine methyl ester	110	N-t-BOC-L-valyl-L-leu-L-lysine 7-amido-4-methylcoumarin
258	N-Formyl-L-methionyl-L-leu-L-phenylalanyl-L-phenylalanine	111	N-t-BOC-L-valyl-L-pro-L-arginine 7-amido-4-methylcoumarin
260	N-Formyl-L-methionyl-L-leu-L-tyrosine, DCHA salt	584	N-Trifluoroacetyl-L-valyl-L-valine cyclohexyl ester
259	N-Formyl-L-methionyl-L-tryptophan	469	Neurotensin acetate
261	N-Formyl-L-methionyl-L-valine	470	Neurotensin fragment 1-6
262	N-Formyl-L-norleucyl-L-leu-L-phenylalanine	471	Neurotensin fragment 1-8
263	N-Formyl-L-norleucyl-L-leu-L-phenylalanine methyl ester	472	Neurotensin fragment 8-13
264	N-Formyl-L-norleucyl-L-leu-L-phe-3,5-diiodo-L-tyrosine	473	Neurotensin, D-phe-11
265	N-Formyl-L-norleucyl-L-leu-L-phe-L-norleu-L-tyr-L-lysine	474	Neurotensin, D-trp-11
286	N-Glutaryl-gly-gly-L-phenylalanine b-naphthylamide	475	Neurotensin, D-tyr-11
287	N-Glutaryl-gly-L-phenylalanine 4-methoxy-b-naphthylamide	725	Non-intrinsic factor from porcine gastric mucosa
285	N-Glutaryl-L-ala-L-ala-L-alanine 4-methoxy-b-naphthylamide	56	o-Aminobenzoylglycyl-p-nitro-L-phenylalanyl-L-proline
288	N-Glutaryl-L-phenylalanine 7-amido-4-methylcoumarin	579	O-Succinyl-L-homoserine
289	N-Glutaryl-L-phenylalanine p-nitroanilide	481	Oxytocin synthetic
370	N-Hippurylglycylglycine	482	Oxytocin, 10% + mannitol + buffer
583	N-p-Tosylglycyl-L-prolyl-L-arginine p-nitroanilide		
510	N-Phthalylglycine		
514	N-Phthalylglycyl-a-aminoisobutyric acid		



<u>No.</u>	<u>Compound Description</u>
383	p-Hydroxyhippuryl-L-histidyl-L-leucine
483	Pancreozymin from porcine intestine

<u>No.</u>	<u>Compound Description</u>
485	Parathyroid hormone fragment(asp76)-human: 73-84