

PolyPeptide Maillard's Reaction Products: Description and Comments

Name1	Name2	Formula	CAS	Code	MW	Description	Comment 1	Comment 2	Comment 3
Argpyrimidine. TFA salt		C11H18N4O3	[195143-52-3]	SC1534	M.W. 254.29	(2S)-2-amino-5-(5-hydroxy-4,6-dimethyl-pyrimidin-2-ylamino)-pentanoic acid. TFA salt	Sold by total weight of powder	Argpyrimidine is a fluorescent adduct derived from methylglyoxal (MG) and arginine residues.	
CEL		C9H18N2O4		SC1506	M.W. 218.25	epsilon-N-carboxyethyl-L-Lysine (mixture of two diastereoisomers)	Sold by total weight of powder		
CEL-d4		C9H14D4N2O4		SC1564	M.W. 222.28	epsilon-N-carboxyethyl-L-[4,4,5,5- ² H ₄]Lysine (mixture of two diastereoisomers)	Sold by total weight of powder		
CML		C8H16N2O4	[5746-04-3]	SC1505	M.W. 204.23	epsilon-N-carboxymethyl-L-Lysine	Sold by total weight of powder	epsilon-N-carboxymethyl-L-Lysine (CML) is an important Maillard reaction product which can be used as markers for diabetes, pathology in aging or heat damage of food.	
CML-d2		C8H14D2N2O4		SC1529	M.W. 206.24	epsilon-N-carboxy[2H2]methyl-L-Lysine	Sold by total weight of powder		
Furosine dihydrochloride		C12H18N2O4.2HCl	[19746-33-9]	SC494	M.W. 254.28	epsilon-N-(2-furoyl-methyl)-L-Lysine.2HCl	Sold by total weight of powder	Quantification of Furosine with HPLC methods proves to be a powerful analytical tool with which to determine the thermal history of a food, resulting in interesting applications and quality control perspectives.	
G-H1		C8H14N4O3		SC1556	M.W. 214.22	(2S)-2-amino-5-(4-oxo-4,5-dihydro-1H-imidazol-2-ylamino)-pentanoic acid (mixture of two isomers)	Sold by total weight of powder	G-H1 is one of hydroimidazolone isomers derived from glyoxal (GO) and arginine residues.	
G-H1-13C2		C ⁶ ₁₃ C ² H14N4O3		SC1590	M.W. 216.21	(2S)-2-amino-5-[(4,5- ¹³ C ₂)-4-oxo-4,5-dihydro-1H-imidazol-2-ylamino]-pentanoic acid (mixture of two isomers)	Sold by total weight of powder		
G-H2		C8H14N4O3		SC1560	M.W. 214.22	(2S)-2-amino-5-(2-amino-4-oxo-4,5-dihydro-imidazol-1-yl)-pentanoic acid	Sold by total weight of powder	G-H2 is one of hydroimidazolone isomers derived from glyoxal (GO) and arginine residues.	
G-H3		C8H14N4O3		SC1562	M.W. 214.22	(2S)-2-amino-5-(2-amino-5-oxo-4,5-dihydro-imidazol-1-yl)-pentanoic acid. TFA salt	Sold by total weight of powder	G-H3 is one of hydroimidazolone isomers derived from glyoxal (GO) and arginine residues.	
GALA	Glycolic acid-lysine-amide	C8H16N2O4		SC1549	M.W. 204.23	(2S)-2-amino-6-(2-hydroxy-acetylamino)-hexanoic acid	Sold by total weight of powder	GALA is an advanced glycation end product derived from the Amadori product of glucose and lysine residue.	
GOLA	Glyoxal-lysine-amide	C14H28N4O5		SC1548	M.W. 332.40	(2S)-2-amino-6-[(5S)-5-amino-5-carboxy-pentylcarbamoyl]-methylamino]-hexanoic acid hydrochloride	Sold by total weight of powder	GOLA is an advanced glycation end product derived from the Amadori product of glucose and lysine residue.	50 mg conditioned in 5 vials of 10 mg
GOLD	Glyoxal-derived lysine dimer	C15H27N4O4		SC1526	M.W. 327.40	1,3-bis(5-amino-5-carboxypentyl)-3H-imidazolium. acetate	Sold by total weight of powder	GOLD is an imidazolium crosslink derived from glyoxal (GO) and lysine residues.	
GOLD-15N2	Glyoxal-derived lysine dimer- ¹⁵ N ₂	C15H27N ¹⁵ 2O4		SC1566	M.W. 329.39	1,3-bis(5-[¹⁵ N]Amino-5-carboxypentyl)-3H-imidazolium. acetate	Sold by total weight of powder		10 mg conditioned in 2 vials of 5 mg
MOLD	Methylglyoxal-derived lysine dimer	C16H29N4O4		SC1527	M.W. 341.43	1,3-bis(5-amino-5-carboxypentyl)-4-methyl-3H-imidazolium. acetate	Sold by total weight of powder	MOLD is an imidazolium crosslink derived from methylglyoxal (MG) and lysine residues.	
MOLD-15N2	Methylglyoxal-derived lysine dimer- ¹⁵ N ₂	C16H29N ¹⁵ 2O4		SC1567	M.W. 343.42	1,3-bis(5-[¹⁵ N]Amino-5-carboxypentyl)-4-methyl-3H-imidazolium. acetate	Sold by total weight of powder		10 mg conditioned in 2 vials of 5 mg
MG-H1		C9H16N4O3		SC1528	M.W. 228.25	(2S)-2-amino-5-(5-methyl-4-oxo-4,5-dihydro-1H-imidazol-2-ylamino)-pentanoic acid (mixture of four isomers)	Sold by total weight of powder	MG-H1 is one of hydroimidazolone isomers derived from methylglyoxal (MG) and arginine residues.	Purity > 95%
MG-H1-d3		C9H13D3N4O3		SC1565	M.W. 231.27	(2S)-2-amino-5-(5-[² H ₃]methyl-4-oxo-4,5-dihydro-1H-imidazol-2-ylamino)-pentanoic acid (mixture of four isomers)	Sold by total weight of powder		
MG-H2		C9H16N4O3		SC1525	M.W. 228.25	(2S)-2-amino-5-(2-amino-5-methyl-4-oxo-4,5-dihydro-imidazol-1-yl)-pentanoic acid. acetate (mixture of two diastereoisomers)	Sold by total weight of powder	MG-H2 is one of hydroimidazolone isomers derived from methylglyoxal (MG) and arginine residues.	
MG-H3		C9H16N4O3		SC1563	M.W. 228.25	(2S)-2-amino-5-(2-amino-4-methyl-5-oxo-4,5-dihydro-imidazol-1-yl)-pentanoic acid. TFA salt (mixture of two diastereoisomers)	Sold by total weight of powder	MG-H3 is one of hydroimidazolone isomers derived from methylglyoxal (MG) and arginine residues.	
Protected DHP-Lysine	Protected dihydropyridine-lysine	C23H36N2O6		SC1531	M.W. 436.55	(2S)-Boc-2-amino-6-(3,5-diformyl-4-methyl-4H-pyridin-1-yl)-hexanoic acid t-butyl ester	Sold by total weight of powder	After removal of Boc and tBu protecting groups (protocol provided with the product), this dihydropyridine derivative can be used as a potential cross-link product derived from malondialdehyde (MDA) and lysine residues.	
Pentosidine. TFA salt		C17H27N6O4	[124505-87-9]	SC1535	M.W. 379.44		Sold by total weight of powder	Pentosidine, a crosslink amino acid comprising a lysine and an arginine residue linked by a pentose can be used as a marker in aging and disease. The fluorescent crosslink level can be measured by high-pressure liquid chromatography (HPLC).	
Pyrraline	epsilon-pyrrole-lysine	C12H18N2O4	[74509-14-1]	SC1559	M.W. 254.29	(2S)-2-amino-6-(2-formyl-5-hydroxymethyl-pyrrol-1-yl)-hexanoic acid	Sold by total weight of powder	Pyrraline is an advanced Maillard reaction product derived from reaction of glucose with lysine residue.	10 mg conditioned in 2 vials of 5 mg
(+)-Deoxyypyridinoline . TFA salt	Dpd. TFA salt	C18H29N4O7	[83462-55-9]	SC1579	M.W. 413.45		Sold by total weight of powder	(+)-Deoxyypyridinoline (Dpd) is a cross-link of bone collagen detected in human urine and used as a biochemical marker of various bone diseases such as osteoporosis, arthropathies and bone cancer. This cross-link can be measured by HPLC method and is essential for use as reference standards in diagnostics of diseases.	