

Proteases

Protease	Class	Cleavage site	Known inhibitors
Aminopeptidase M	metalloprotease	amino-terminal L-amino acids with free amino groups; not X-Pro, not D or Q	2,2' bipyridine, 1,10-phenanthroline
Bromelain	thiolprotease	no specificity	α_2 -macroglobulin, TPCK, TLCK, alkylation
Carboxypeptidase A	zinc metalloprotease	carboxy-terminal L-amino acids with free amino groups; not R, P, or hydroxyproline	EDTA, EGTA
Carboxypeptidase B	zinc metalloprotease	carboxy-terminal K, R	EDTA, EGTA, basic amino acids
Carboxypeptidase Y	serine metalloprotease	carboxy-terminal amino acids	PMSF
Cathepsin C	thiolprotease	amino-terminal dipeptides, blocked by amino-terminal K or R, or P as 2nd or 3rd amino acid	iodoacetate, formaldehyde
Chymotrypsin	serine protease	after F, T, or Y	aprotinin, PMSF, TPCK, α_2 -macroglobulin
Collagenase	metalloprotease	after X in P-X-G-P	EDTA, EGTA, reducing agents, but not serum.
Dispase	metalloprotease	no specificity	EDTA, EGTA, Hg ⁺⁺ , and heavy metals
Endoproteinase Arg-C	serine protease	after R	α_2 -macroglobulin, TLCK
Endoproteinase Asp-N	metalloprotease	before D and cysteic acid	EDTA, α -phenanthroline
Endoproteinase Glu-C (<i>S. aureus</i> V.8)	serine protease	after E, or after D or E	α_2 -macroglobulin, TLCK
Endoproteinase Lys-C	serine protease	after K	TLCK, aprotinin, leupeptin
Enterokinase	serine protease	after K in D-D-D-D-K- (used to remove FLAG tag)	
Factor Xa	serine protease	after R	PMSF, APMSF, soybean trypsin inhibitor
Ficin	thiolprotease	no specificity	TPCK, TLCK, α_2 -macroglobulin
Kallikrein	serine protease	after some R	leupeptin, aprotinin
Papain	thiolprotease	on long incubation, broad specificity	TPCK, TLCK, leupeptin, α_2 -macroglobulin, alkylating agents
Pepsin	acid protease	broad specificity	pepstatin
Plasmin	serine protease	after K or R	PMSF, TLCK, aprotinin, α_2 -macroglobulin
Pronase	mixture	no specificity	B.M. Complete Tablets
Proteinase K	serine protease	broad specificity	PMSF, Pefabloc SC
Subtilisin	serine protease	broad specificity	PMSF, α_2 -macroglobulin, benzamidine
Thermolysin	zinc-metalloprotease	before nonpolar residues	EDTA
Thrombin	serine protease	after R	TLCK, PMSF, leupeptin, aprotinin, α_2 -macroglobulin, benzamidine
Trypsin	serine protease	after K or R	TLCK, PMSF, leupeptin, aprotinin, α_2 -macroglobulin

Most of the information in this table is derived from Boehringer Mannheim (1998) and Calbiochem (1996/1997).
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