Endopeptidase or endoproteinase are proteolytic peptidases that break peptide bonds of nonterminal amino acids (i.e. within the molecule), in contrast to exopeptidases, which break peptide bonds from end-pieces of terminal amino acids.

For this reason, endopeptidases cannot break down peptides into monomers, while exopeptidases can break down proteins into monomers. A particular case of endopeptidase is the oligopeptidase, whose substrates are oligopeptides instead of proteins.

They are usually very specific for certain amino acids. Examples of endopeptidases include:

Trypsin - cuts after Arg or Lys, unless followed by Pro. Very strict. Works best at pH 8. Chymotrypsin - cuts after Phe, Trp, or Tyr, unless followed by Pro. Cuts more slowly after His, Met or Leu. Works best at pH 8. Elastase - cuts after Ala, Gly, Ser, or Val, unless followed by Pro. Thermolysin - cuts before Ile, Met, Phe, Trp, Tyr, or Val, unless preceded by Pro. Sometimes cuts after Ala, Asp, His or Thr. Heat stable. Pepsin - cuts before Leu, Phe, Trp or Tyr, unless preceded by Pro. Also others, quite nonspecific; works best at pH 2. Glutamyl endopeptidase - cuts after Glu. Works best at pH 8. Neprilysin