

Recombinant Human ADAMTS5

Cat. No. ADAMTS5-535H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ADAMTS5 (Ser262Pro622) fused 10*His tag at C terminal, was expressed in Mouse NSO cells. Recombinant Human ADAMTS5 is prone to proteolytic cleavage at Cterminus. The predominant form of the purified protein lacks the His tag.
Species	Human
Source	Mammalian Cells
Description	ADAMTS5 (a disintegrin and metalloproteinase with thrombospondin motifs 5), also known as aggrecanase2 and ADAMTS11, is a member of the family of secreted zinc proteases with a multidomain structure. The protein precursors consist of signal peptide and following domains: pro, catalytic, disintegrinlike, TS type 1 motif, cysteine rich, spacer and a variable number of TS type 1 motifs. ADAMTS5 is an active protease effectively cleaving α 2macroglobulin, aggrecan, and brevican, and is inhibited by TIMP3 with inhibition constants in the subnanomolar range. Based on the murine model studies, this protease may be a key enzyme in the degradation of cartilage leading to osteoarthritis and rheumatoid arthritis. The purified rhADAMTS5 starts at the Nterminus of the catalytic domain and ends at the Cterminus of the TSP 1 domain. The amino acid sequence of rhADAMTS5 is 98%, 97%, and 96% identical to that of canine, bovine, and mouse/rat. The aggrecanase activity can be inhibited by 5 mM 1,10phenanthroline and recombinant human TIMP3
Predicted Molecular Mass	41 kDa

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Predicted N Terminal	Ser262
Formulation	Lyophilized from a 0.2 µm filtered solution in Sodium Acetate, CaCl ₂ and NaCl.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Endotoxin Level	<1.0 EU per 1 µg of the protein by the LAL method.
Biological Activity	Measured by its ability to cleave Recombinant Human Aggrecan G1/G2 Domains
Reconstitution	Reconstitute at 200 µg/mL in sterile, deionized water.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, 20 to 70°C as supplied. 3 months, 20 to 70°C under sterile conditions after reconstitution.
Official Symbol	ADAMTS5

GENE INFORMATION

Gene Name	ADAMTS5 ADAM metalloproteinase with thrombospondin type 1 motif, 5 [Homo sapiens]
Synonyms	ADAM metalloproteinase with thrombospondin type 1 motif, 5; ADMP-2; ADAMTS11; FLJ36738; ADAMTS5; a disintegrin and metalloproteinase with thrombospondin motifs 5; ADAM-TS5; ADAM-TS 5; ADAMTS-11; ADAM-TS 11; aggrecanase-2; a disintegrin and metalloproteinase with thrombospondin motifs 11; a disintegrin-like and metalloprotease (reprolysin type) with thrombospondin type 1 motif, 5

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	(aggrecanase-2); EC 3.4.24.
Gene ID	11096
mRNA Refseq	NM_007038
Protein Refseq	NP_008969
MIM	605007
UniProt ID	Q9UNA0
Chromosome Location	21q21.3
Pathway	Endochondral Ossification
Function	integrin binding; metalloendopeptidase activity; metallopeptidase activity; zinc ion binding
Renderingbasedon PDB 2QCW	

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