

Active Recombinant Human ADAMTS5, His-tagged

Cat. No. ADAMTS5-534H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human ADAMTS5 was expressed in <i>abaculovirus</i> system and purified from insect cells. The enzyme contains the catalytic domain, the disintegrin domain and the thrombospondin type-1 motif of full-length ADAMTS-5 followed by a C-terminal His tag, 50 kDa.
Species	Human
Source	Insect Cells
Protein Length	625-930 aa
Description	Aggrecanases belong to a family of ADAMTS proteases (ADAMTS = A disintegrin and metalloprotease with thrombospondin motifs). ADAMTS enzymes are comprised of an N-terminal prodomain, a catalytic domain, a disintegrin domain, one or more thrombospondin (TS) motifs, a cysteine-rich domain and a spacer domain of variable length. The prodomains are cleaved off intracellularly and the enzymes are processed further from their C-terminal ends after secretion. Aggrecanases are responsible for aggrecan degradation in osteoarthritic joints. ADAMTS-5 was found to be the principal aggrecanase in mouse cartilage.
Activity	Activity (mU/mg) is specified on the vial.
Purity	≥ 50%.
Unit Definition	One milliunit of protease hydrolyzes 1 nanomole of aggrecan interglobular domain

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	substrate per minute at pH 7.5 at 37°C.
Formulation	50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 5 mM CaCl ₂ , 50 mM Imidazol, 0.05% Brij-35.
Application	Used as a positive control in FRET-based and aggrecan enzyme activity assays, Western blot, IP, and ELISA.
Storage	Store at -80°C. Avoid multiple thaw-freeze cycles.

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 metalloproteinase (reprolysin type) with thrombospondin type 1 motif, 5 (aggrecanase-2); EC 3.4.24.-
Gene ID	11096
mRNA Refseq	NM_007038
Protein Refseq	NP_008969
MIM	605007
Chromosome Location	21q21.3

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Function

integrin binding; metal ion binding; metalloendopeptidase activity; metallopeptidase activity; peptidase activity; zinc ion binding

**PDB rendering based
on 2rjq**

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