

Active Recombinant Human ADAMTS5 Protein, His-tagged

Cat. No. ADAMTS5-144H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Human

Source CHO

Description

Synthetic human ADAMTS5 DNA sequence, amino acid residues 626-930 with N-terminal signal peptide and C-terminal 6His-Tag expressed in the CHO cell expression system. This protein binds to murine monoclonal antibodies of defined epitope specificity.

ADAMST5: ADAMST5 defined as a disintegrin-metalloproteinase with thrombospondin motif 5, also known as aggrecanase-2 and ADAMST511, is a member of the family of secreted zinc proteases with a multi-domain structure. The protein precursor consists of signal peptide, a pro-catalytic, disintegrin-like, TS type 1 motif, cysteine-rich, spacer and a variable number of TS type 1 motifs. ADAMST5 is an active protease effectively cleaving alpha-2 macroglobulin, aggrecan and brevican, and is inhibited by TIMP-3. The purified rhADAMSt5 starts at the N-terminus of the catalytic domain and ends at the C-terminus of the TSP-1 domain. The amino acid sequence of rhADAMST5 has 95-98% homology with canine, bovine and murine proteins.

Form Frozen Liquid

Bio-activity

Measured by its ability to cleave human Aggrecan (native and recombinant).
Substrate and enzyme in a molar ratio of 10:1 (10ug substrate, 1ug enzyme) in buffer

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(50mM Tris, pH 7.5, 10mM CaCl₂, 0.15M NaCl, 0.05% Brij-35 incubated for 2-4 hours at 37C. The degradation products were analyzed by SDS-PAGE Western blots using epitope-specific monoclonal antibodies and molecular mass determination of aggrecan degradation products.

Molecular Mass	54 kD
Purity	> 95 % by SDS-PAGE
Applications	Aggrecanase Assays; Drug Screening.
Notes	Recommended concentrations for use are approximate values. A substrate/enzyme assays could be performed to determine the optimal ratios for specific applications.
Stability	This protein is stable for upto 12 months at -75 centigrade. Aliquote protein for long term use and freeze at -75 centigrade. Avoid repeated freezing –thawing of the protein. Endotoxin content of the protein: <1000EU/mg.
Storage	Store at -75 centigrade.
Dilutions	20mM Na-Ac, 0.6M NaCl, 0.01M CaCl ₂ , 0.035% Brij-35

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