

Product datasheet

Recombinant human ADAMTS1 protein ab134430

1 Image

Description

Product name	Recombinant human ADAMTS1 protein
Biological activity	Activity of ab134430 is determined with recombinant aggrecan interglobular domain. ab134430 hydrolyzes the aggrecanase site within this domain (peptide bond E ₃₇₃ - A ₃₇₄ in Human aggrecan). The recombinant substrate is incubated at a concentration of 0.1 μM with 0.2-3.0 nM ADAMTS1 in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 5 mM CaCl ₂ , 1 μM leupeptin, 1 μM pepstatin, 1 mM Pefabloc, 0.05 % Brij 35 for 15 min at 37°C. Cleavage at the aggrecanase-site is estimated from the appearance of the hydrolysis fragment with the novel N-terminus ARGSVIL. The fragment is quantified with two monoclonal antibodies, one directed against the neoepitope ARGSVIL, the other against the sequence C-terminal to the neoepitope. Under the specified conditions the hydrolysis rate is > 0.06 nM hydrolysed substrate/min x nM truncated ADAMTS1. When related to mg enzyme, the value is > 1.4 nmoles hydrolyzed substrate/min x mg ADAMTS1.
Purity	> 90 % SDS-PAGE. ab134430 was purified from insect cell culture supernatants.
Expression system	Baculovirus infected insect cells
Accession	Q9UHI8
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	FVSSHRYVETMLVADQSMAEFHGSLKHYLLTLFSAARL YKHPsirNSV SLVVVKILVIHDEQKGPEVTSNAALTLRNFCNWQKQHNP SDRDAEHYDT AIlFTRQDLcGSQTCDTLGMADVGTVCdPSRSCSVIEDD GLQAAFTTAHE LGHVFNMPHDDAKQCASLNGVNQDSHMMASMLSNLDH SQPWSPCSAYMIT SFLDNHGGECLMDKPHNPIQLPGDLPGTSYDANRQCQFT FGEDSKHCPDA ASTCSTLWCTGTSGGVLVCQTKHFPWADGTSCGEGKW CINGKCVNKTDK HFDTPFHGNWGMWGPWGDCSRTCgggVQYTMRECDN PVPKNGGKYCEGKR VRYRSCNLEDcPDN(H) ₆

Predicted molecular weight	41 kDa including tags
Amino acids	253 to 616
Tags	His tag C-Terminus

Specifications

Our [Abpromise guarantee](#) covers the use of **ab134430** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Functional Studies SDS-PAGE Inhibition Assay
Form	Liquid

Preparation and Storage

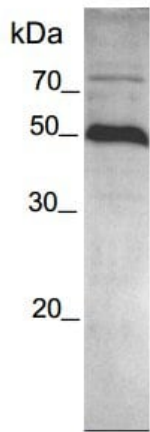
Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.50 Constituents: 0.05% Brij, 0.05% Calcium chloride, 0.79% Tris HCl, 0.88% Sodium chloride This product is an active protein and may elicit a biological response in vivo, handle with caution.
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General Info

Function	Cleaves aggrecan, a cartilage proteoglycan, and may be involved in its turnover (By similarity). Has angiogenic inhibitor activity. Active metalloprotease, which may be associated with various inflammatory processes as well as development of cancer cachexia. May play a critical role in follicular rupture.
Sequence similarities	Contains 1 disintegrin domain. Contains 1 peptidase M12B domain. Contains 3 TSP type-1 domains.
Domain	The spacer domain and the TSP type-1 domains are important for a tight interaction with the extracellular matrix. The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme.
Post-translational modifications	The precursor is cleaved by a furin endopeptidase.
Cellular localization	Secreted > extracellular space > extracellular matrix.

Images

SDS-PAGE analysis of ab134430 (2 µg)



SDS-PAGE - Recombinant human ADAMTS1 protein (ab134430)

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