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Datasheet for ABIN7317728 **ADAM12 Protein (His tag)**

Overview

Quantity:	100 µg
Target:	ADAM12
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This ADAM12 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human ADAM12 Protein (His Tag)(Active)
Sequence:	Met 1-Ser 513
Characteristics:	A DNA sequence encoding the human ADAM12 isoform 1 (NP_003465.3) extracellular domain (Met 1-Ser 513) was fused with a polyhistidine tag at the C-terminus.
Purity:	> 98 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	Measured by its binding ability in a functional ELISA. Immobilized human ADAM12-His at 10 µg/ml (100 µl/well) can bind biotinylated mouse FLRG-His with a linear range of 0.31-1.25 µg/ml.

Target Details

Target:	ADAM12
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Target Details

Alternative Name: ADAM12 ([ADAM12 Products](#))

Background: The ADAMs (a disintegrin and metalloprotease) comprise a family of multidomain proteins with metalloprotease, cell adhesion, and signaling activities. Human ADAM12, which is implicated in diseases such as cancer, is expressed in two splice forms, the transmembrane ADAM12-L and the shorter and soluble ADAM12-S. ADAM12, also known as and Meltrin alpha, is a member of the ADAM protein family, which contains one disintegrin domain, one EGF-like domain and one peptidase M12B domain. ADAM12 is synthesized as a zymogen with the prodomain keeping the metalloprotease inactive through a cysteine-switch mechanism. Maturation and activation of the protease involves the cleavage of the prodomain in the trans-Golgi or possibly at the cell surface by a furin-peptidase. It is a membrane-anchored metalloprotease, which has been implicated in activation-inactivation of growth factors that play an important role in wound healing, including heparin-binding epidermal growth factor (EGF)-like growth factor (HB-EGF) and IGF binding proteins. ADAM12 may also regulate cell-cell and cell-extracellular matrix contacts through interactions with cell surface receptors - integrins and syndecans - potentially influencing the actin cytoskeleton. Moreover, ADAM12 interacts with several cytoplasmic signaling and adaptor molecules through its intracellular domain, thereby directly transmitting signals to or from the cell interior. These ADAM12-mediated cellular effects appear to be critical events in both biological and pathological processes. In addition to protease activity, ADAM12 possesses cell binding and cell signaling properties. In many studies, ADAM12 overexpression has been correlated with disease, and ADAM12 has been shown to promote tumor growth and progression in cancer. On the other hand, protective effects of ADAM12 in disease have also been reported.

Synonym: ADAM12-OT1,CAR10,MCMP,MCMPLtna,MLTN,MLTNA

Molecular Weight: 55.2 kDa

NCBI Accession: [NP_003465](#)

Pathways: [EGFR Signaling Pathway](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Handling

Buffer: Lyophilized from sterile PBS, pH 7.4

Storage: 4 °C,-20 °C,-80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.
Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.