

ADAM15 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P75564
Synonyms:	Disintegrin and metalloproteinase domain-containing protein 15; ADAM 15; MDC-15; Metargidin
Species:	Mouse
Source:	HEK293
Accession:	O88839 (R18-T697)
Gene ID:	11490
Molecular Weight:	Approximately 75-110 kDa due to the glycosylation.

PROPERTIES

AA Sequence

R P S P P L P N I G	G T E E E Q Q A S P	E R T L S G S M E S	R V V Q D S P P M S
L A D V L Q T G L P	E A L R I S L E L D	S E S H V L E L L Q	N R D L I P G R P T
L V W Y Q P D G T R	M V S E G Y S L E N	C C Y R G R V Q G H	P S S W V S L C A C
S G I R G L I V L S	P E R G Y T L E L G	P G D L Q R P V I S	R I Q D H L L L G H
T C A P S W H A S V	P T R A G P D L L L	E Q H H A H R L K R	D V V T E T K I V E
L V I V A D N S E V	R K Y P D F Q Q L L	N R T L E A A L L L	D T F F Q P L N V R
V A L V G L E A W T	Q H N L I E M S S N	P A V L L D N F L R	W R R T D L L P R L
P H D S A Q L V T V	T S F S G P M V G M	A I Q N S I C S P D	F S G G V N M D H S
T S I L G V A S S I	A H E L G H S L G L	D H D S P G H S C P	C P G P A P A K S C
I M E A S T D F L P	G L N F S N C S R Q	A L E K A L L E G M	G S C L F E R Q P S
L A P M S S L C G N	M F V D P G E Q C D	C G F P D E C T D P	C C D H F T C Q L R
P G A Q C A S D G P	C C Q N C K L H P A	G W L C R P P T D D	C D L P E F C P G D
S S Q C P S D I R L	G D G E P C A S G E	A V C M H G R C A S	Y A R Q C Q S L W G
P G A Q P A A P L C	L Q T A N T R G N A	F G S C G R S P G G	S Y M P C A P R D V
M C G Q L Q C Q W G	R S Q P L L G S V Q	D R L S E V L E A N	G T Q L N C S W V D
L D L G N D V A Q P	L L A L P G T A C G	P G L V C I G H R C	Q P V D L L G A Q E
C R R K C H G H G V	C D S S G H C R C E	E G W A P P D C M T	Q L K A T S S L T T

Biological Activity Measured by its ability of the immobilized protein to support the adhesion of Jurkat human acute T cell leukemia cells. The ED₅₀ for this effect is 4.53 µg/mL, corresponding to a specific activity is 2.21×10² units/mg.

Appearance Lyophilized powder.

Formulation Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.

Endotoxin Level <1 EU/µg, determined by LAL method.

Reconstitution It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is

recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

ADAM15, an active metalloproteinase, exhibits gelatinolytic and collagenolytic activity, playing a crucial role in diverse physiological processes. Its involvement in wound healing is notable, and it mediates both heterotypic intraepithelial cell/T-cell interactions and homotypic T-cell aggregation. Additionally, ADAM15 functions in inhibiting beta-1 integrin-mediated cell adhesion and migration of airway smooth muscle cells, suppressing cell motility on or towards fibronectin by potentially influencing alpha-v/beta-1 integrin cell surface expression through ERK1/2 inactivation. Notably, ADAM15 cleaves E-cadherin in response to growth factor deprivation and contributes to glomerular cell migration, suggesting its involvement in various cellular events. Furthermore, its role in pathological neovascularization and potential contribution to cartilage remodeling underscore its multifaceted functions. ADAM15 may undergo proteolytic processing during sperm epididymal maturation and the acrosome reaction, potentially playing a role in sperm-egg binding through interactions with egg membrane receptors, particularly integrins.

Caution: Product has not been fully validated for medical applications. For research use only.

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