

Recombinant Mouse ADAMTS12, His-tagged

Cat. No. ADAMTS12-3006M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A Disintegrin And Metalloproteinase With Thrombospondin 12 (ADAMTS12)
Species	Mouse
Source	E.coli
ProteinLength	34350
Description	This gene encodes a large abundant protein of striated muscle. The product of this gene is divided into two regions, a N-terminal I-band and a C-terminal A-band. The I-band, which is the elastic part of the molecule, contains two regions of tandem immunoglobulin domains on either side of a PEVK region that is rich in proline, glutamate, valine and lysine. The A-band, which is thought to act as a protein-ruler, contains a mixture of immunoglobulin and fibronectin repeats, and possesses kinase activity. An N-terminal Z-disc region and a C-terminal M-line region bind to the Z-line and M-line of the sarcomere, respectively, so that a single titin molecule spans half the length of a sarcomere. Titin also contains binding sites for muscle associated proteins so it serves as an adhesion template for the assembly of contractile machinery in muscle cells. It has also been identified as a structural protein for chromosomes. Alternative splicing of this gene results in multiple transcript variants. Considerable variability exists in the I-band, the M-line and the Z-disc regions of titin. Variability in the I-band region contributes to the differences in elasticity of different titin isoforms and, therefore, to the differences in elasticity of different muscle types. Mutations in this gene are associated with familial hypertrophic cardiomyopathy 9,

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	and autoantibodies to titin are produced in patients with the autoimmune disease scleroderma. [provided by RefSeq, Feb 2012]
Form	Supplied as lyophilized form in PBS,pH7.4, containing 5% sucrose, 0.01% sarcosyl.
Molecular Mass	21.0kDa
Endotoxin	<1.0eu per 1ug (determined by the lal</1.0eu
Purity	>95%
Applications	SDS-PAGE, Western Blot (WB), ELISA (EIA), Immunoprecipitation (IP)
Notes	Small volumes of ADAMTS12 recombinant protein may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months.Stability Test: The thermal stability is described by the loss rate of the targetprotein. The loss rate was determined by accelerated thermal degradation test,that is, incubate the protein at 37 degree C for 48h, and no obvious degradation andprecipitation were observed. (Referring from China Biological Products Standard,which was calculated by the Arrhenius equation.) The loss of this protein is lessthan 5% within the expiration date under appropriate storage condition.
Reconstitution	Reconstitute in sterile PBS, pH7.2-pH7.4.
Warning	This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GENE INFORMATION

Gene Name	Adamts12 a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 12 [<i>Mus musculus</i>]
Official Symbol	ADAMTS12
Synonyms	ADAMTS12; a disintegrin-like and metallopeptidase (reprolysin type) with thrombospondin type 1 motif, 12; A disintegrin and metalloproteinase with thrombospondin motifs 12; ADAM-TS12; ADAM-TS 12; metalloprotease disintegrin 12; a disintegrin-like and metalloprotease with thrombospondin type 1 motif, 12; a disintegrin-like and metalloprotease (reprolysin type) with thrombospondin type 1 motif, 12; AI605170; ADAMTS-12;
Gene ID	239337
mRNA Refseq	NM_175501
Protein Refseq	NP_780710
Function	hydrolase activity; metal ion binding; metalloendopeptidase activity; metallopeptidase activity; peptidase activity; zinc ion binding;

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