

Mouse ECM1 Protein (His Tag)



Sino Biological
Biological Solution Specialist

Catalog Number: 50331-M08H

General Information

Gene Name Synonym:

AI663821; p85

Protein Construction:

A DNA sequence encoding the mouse ECM1 isoform 1 (Q61508-1) (Met 1-Glu 559) was expressed, fused with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 88 % as determined by SDS-PAGE

Bio-activity:

Measured by the ability of the immobilized protein to support the adhesion of HFF Human skin fibroblast cells. When 5×10^4 cells/well are added to mECM1-His coated plates (2.5 μ g/mL and 100 μ L/well), approximately > 45% will adhere specifically after 90 minutes at 37 $^{\circ}$ C.

Endotoxin:

< 1.0 EU per μ g of the protein as determined by the LAL method

Predicted N terminal: Ala 20

Molecular Mass:

The secreted recombinant mouse ECM1 comprises 551 amino acids and has a predicted molecular mass of 62.5 kDa. As a result of glycosylation, the apparent molecular mass of rm ECM1 is approximately 90-95 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:

Samples are stable for twelve months from date of receipt at -20 $^{\circ}$ C to -80 $^{\circ}$ C.

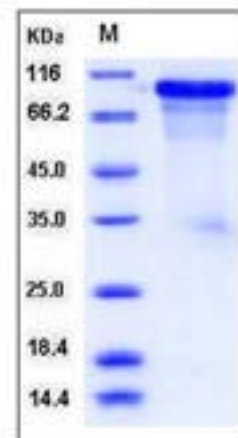
Store it under sterile conditions at -20 $^{\circ}$ C to -80 $^{\circ}$ C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Extracellular matrix protein 1 (ECM1) is a secreted glycoprotein and playing a pivotal role in endochondral bone formation, angiogenesis, and tumour biology. Three splice variants have been identified: ECM1a (54 aa) is most widely expressed, with highest expression in the placenta and heart; ECM1b (415 aa) is differentiation-dependent expressed and found only in tonsil and associated with suprabasal keratinocytes; ECM1c (559 aa) accounts for approximately 15% of skin ECM1. Although ECM1 is not tumor specific, is significantly elevated in many malignant epithelial tumors and is suggested as a possible trigger for angiogenesis, tumor progression and malignancies. It also has been shown to regulate endochondral bone formation, skeletal development and tissue remodeling.

References

- 1.Oyama N, *et al.* (2003) Autoantibodies to extracellular matrix protein 1 in lichen sclerosus. *Lancet.* 362(9378): 118-23.
- 2.Chan I, *et al.* (2004) Rapid diagnosis of lipoid proteinosis using an anti-extracellular matrix protein 1 (ECM1) antibody. *J Dermatol Sci.* 35(2): 151-3.
- 3.Lupo I, *et al.* (2005) A novel mutation of the extracellular matrix protein 1 gene (ECM1) in a patient with lipoid proteinosis (Urbach-Wiethe disease) from Sicily. *Br J Dermatol.* 153(5): 1019-22.