Human MFG-E8 / lactadherin / MFGE8 Protein (His Tag)

Catalog Number: 10853-H08B

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

BA46; EDIL1; HMFG; hP47; HsT19888; MFG-E8; MFGM; OAcGD3S; SED1; SPAG10

Protein Construction:

A DNA sequence encoding the human MFGE8 isoform 1 (Q08431-1) (Met 1-Cys 387) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: ≥ 80 % as determined by SDS-PAGE. ≥ 90 % as determined by SEC-HPLC.

Bio Activity:

When 5 x 10^4 cells/well are added to Recombinant Human MFG-E8 coated plates (12.5 μg/mL, 100 μL/well), 45-85% cells will adhere after 1 hour at 37℃.

Endotoxin:

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

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Leu 24

Molecular Mass:

The secreted recombinant human MFGE8 comprises 374 amino acids and has a predicted molecular mass of 42 kDa. The apparent molecular mass of rh MFGE8 is approximately 45 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly

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

Storage:

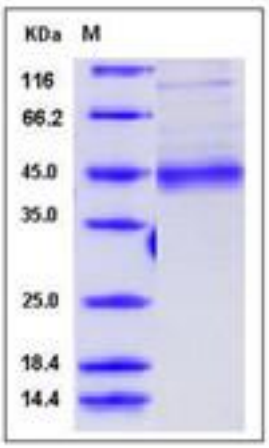
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

MFG-E8, also known as lactadherin and MFGE8, contains 1 EGF-like domain and 2 F5/8 type C domains. It also contains a phosphatidylserine (PS) binding domain, as well as an Arginine-Glycine-Aspartic acid motif, which enables the binding to integrins. It binds PS, which is exposed on the surface of apoptotic cells. MFG-E8 is expressed in mammary epithelial cell surfaces and aortic media. Overexpression of MFG-E8 can be found in several carcinomas. MFG-E8 has an opsonization of the apoptotic cells and binding to integrins on the surface of phagocytic cells. It also mediates the engulfment of the dead cell. MFG-E8 plays an important role in the maintenance of intestinal epithelial homeostasis and the promotion of mucosal healing. It promotes VEGF-dependent neovascularization and contributes to phagocytic removal of apoptotic cells in many tissues. It also binds to phosphatidylserine-enriched cell surfaces in a receptor-independent manner.

References

1.Oshima K, *et al*. (2002) Secretion of a peripheral membrane protein, MFG-E8, as a complex with membrane vesicles. Eur J Biochem. 269(4):1209-18. 2.Hanayama R, *et al*. (2002) Identification of a factor that links apoptotic cells to phagocytes. Nature. 417 (6885):182-7. 3.Strausberg RL, *et al*. (2003) Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc Natl Acad Sci. 99(26):16899-903.