Mouse DDR1 Kinase / MCK10 / CD167 Protein (Fc Tag)

Catalog Number: **50829-M02H**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

CAK; CD167; DDR; EDDR1; HGK2; MCK10; NEP; NTRK4; PTK3; PTK3A; RTK6; TRKE; 6030432F18; AI323681; Cak; CD167a; Nep; PTK3A

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse DDR1 (NP_766550.1) (Met 1-Thr 414) was fused with the Fc region of human IgG1 at the C-terminus

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

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: Asp 20

Molecular Mass:

The secreted recombinant mouse DDR1/Fc is a disulfide-linked homodimer. The reduced monomer comprises 636 amino acids and has a calculated molecular mass of 71 kDa. As a result of glycosylation, the apparent molecular mass of rmDDR1/Fc monomer is approximately 80-90 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

Storage:

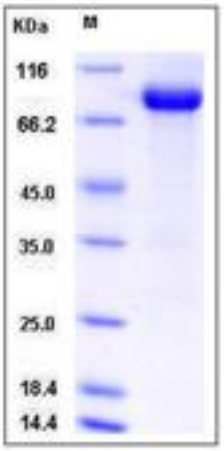
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Discoidin domain receptor family, member 1 (DDR1), also known as or CD167a (cluster of differentiation 167a), and Mammary carcinoma kinase 10 (MCK10), belongs to a subfamily of tyrosine kinase receptors with an extracellular domain homologous to Dictyostellium discoideum protein discoidin 1. Receptor tyrosine kinases play a key role in the communication of cells with their microenvironment. These kinases are involved in the regulation of cell growth, differentiation and metabolism. Expression of DDR1/MCK10/CD167 is restricted to epithelial cells, particularly in the kidney, lung, gastrointestinal tract, and brain. In addition, it has been shown to be significantly overexpressed in several human tumors. DDR1/MCK10/CD167 plays an important role in regulating attachment to collagen, chemotaxis, proliferation, and MMP production in smooth muscle cells. DDR1 functions in a feedforward loop to increase p53 levels and at least some of its effectors. Inhibition of DDR1 function resulted in strikingly increased apoptosis of wild-type p53-containing cells in response to genotoxic stress through a caspase-dependent pathway.

References

1.Hou G, *et al.* (2001) The discoidin domain receptor tyrosine kinase DDR1 in arterial wound repair. J Clin Invest. 107(6): 727-35.
2.Ongusaha PP, *et al.* (2003) p53 induction and activation of DDR1 kinase counteract p53-mediated apoptosis and influence p53 regulation through a positive feedback loop. EMBO J. 22(6): 1289-301.
3.Jönsson M, *et al.* (2001) Repression of Wnt-5a impairs DDR1 phosphorylation and modifies adhesion and migration of mammary cells. J Cell Sci. 114(11): 2043-53.