Human MVK / Mevalonate kinase Protein (His & GST Tag)

Catalog Number: 13923-H20B

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General Information

Gene Name Synonym:

LRBP; MK; MVLK; POROK3; 2310010A05Rik; AI256848; AI414037; MK

Protein Construction:

A DNA sequence encoding the human MVK (Q03426) (Met1-Leu396) was fused with the N-terminal polyhistidine-tagged GST tag at the N-terminus.

Source: Human

Expression Host: Baculovirus-Insect Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Kinase activity untested

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: Met

Molecular Mass:

The recombinant human MVK /GST chimera consists of 633 amino acids and has a calculated molecular mass of 70.2 kDa. The recombinant protein migrates approximately 47 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Supplied as sterile 20mM Tris, 500mM NaCl, 2mM DTT, 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:

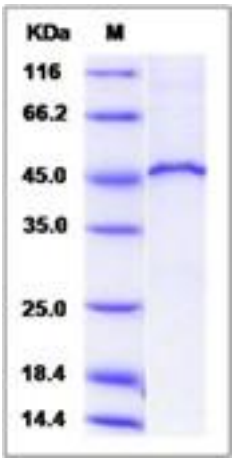
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Mevalonate kinase belongs to the GHMP kinase family, Mevalonate kinase subfamily. It can be found in a wide variety of organisms from bacteria to mammals. Mevalonate kinase may be a regulatory site in cholesterol biosynthetic pathway. Defects in mevalonate kinase can cause mevalonic aciduria (MEVA). It is an accumulation of mevalonic acid which causes a variety of symptoms such as psychomotor retardation, dysmorphic features, cataracts, hepatosplenomegaly, lymphadenopathy, anemia, hypotonia, myopathy, and ataxia. Defects in mevalonate kinase can also cause hyperimmunoglobulinemia D and periodic fever syndrome (HIDS). HIDS is an autosomal recessive disease characterized by recurrent episodes of unexplained high fever associated with skin rash, diarrhea, adenopathy (swollen, tender lymph nodes), athralgias and/or arthritis.

References

1.Fu Z, *et al.* (2008) Biochemical and structural basis for feedback inhibition of Mevalonate kinase and isoprenoid metabolism. Biochemistry. 47(12):3715-24.
2.Houten SM, *et al.* (2000) Biochemical and genetic aspects of Mevalonate kinase and its deficiency. Biochim Biophys Acta. 1529(1-3):19-32.
3.Schafer BL, *et al.* (1992) Molecular cloning of human Mevalonate kinase and identification of a missense mutation in the genetic disease mevalonic aciduria. J Biol Chem. 267(19): 13229-38.