

Recombinant Mouse ITK Kinase Protein (aa 351-619, His & GST Tag)

Catalog Number: PKSM040718

Note: Centrifuge before opening to ensure complete recovery of vial contents.

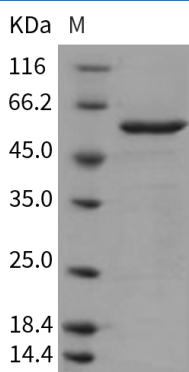
Description

Species	Mouse
Source	Baculovirus-Insect Cells-derived Mouse ITK Kinase protein Arg 351-Leu 619, with an N-terminal His & GST
Calculated MW	58.4 kDa
Observed MW	58 kDa
Accession	Q03526
Bio-activity	Not validated for activity

Properties

Purity	> 80 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 7.5, 10% glycerol, 0.5mM GSH Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 80 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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Rev. V3.6

IL-2-inducible T cell kinase is a member of the protein kinase superfamily, Tyr protein kinase family and TEC subfamily. It contains 1 Btk-type zinc finger, 1 PH domain, 1 protein kinase domain, 1 SH2 domain and 1 SH3 domain. As an intracellular kinase which expressed in T-cells, IL-2-inducible T cell kinase contains both SH2 and SH3 domains which are often found in intracellular kinases. It is thought to play a role in T-cell proliferation and differentiation. It regulates the development, function and differentiation of conventional T-cells and nonconventional NKT-cells. IL-2-inducible T cell kinase also plays an essential role in regulation of the adaptive immune response. Defects in IL-2-inducible T cell kinase are the cause of lymphoproliferative syndrome EBV-associated autosomal type 1 (LPSA1). LPSA1 is a rare immunodeficiency characterized by extreme susceptibility to infection with Epstein-Barr virus (EBV). Inadequate immune response to EBV can have a fatal outcome. Clinical features include splenomegaly, lymphadenopathy, anemia, thrombocytopenia, pancytopenia, recurrent infections. There is an increased risk for lymphoma.