



## Recombinant Protein Technical Manual

**Recombinant Mouse ITK Kinase Protein (aa 351-619,  
His & GST Tag)**  
RPES2661

### Product Data:

**Product SKU:** RPES2661

**Size:** 20µg

**Species:** Mouse

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** Q03526

### Protein Information:

**Molecular Mass:** 58.4 kDa

**AP Molecular Mass:** 58 kDa

**Tag:** N-His-GST

**Bio-activity:**

**Purity:** > 80 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage:** 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% gly, 0.5mM GSH

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** Emt;Tcsk;Tsk

## Immunogen Information:

**Sequence:** Arg 351-Leu 619

## Background:

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.