Human Tyk2 Protein, His Tag (active enzyme)

Catalog # TY2-H5547

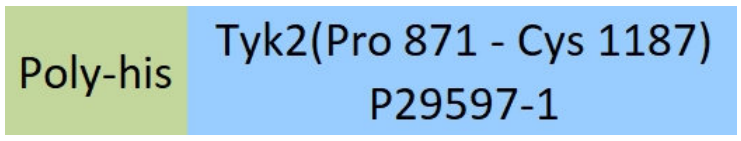
Synonym

Tyk2,tyrosine kinase 2

Source

Human Tyk2 Protein, His Tag(TY2-H5547) is expressed from Baculovirus-Insect cells. It contains AA Pro 871 - Cys 1187 (Accession # P29597-1).
Predicted N-terminus: His

Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus.

The protein has a calculated MW of 38.5 kDa. The protein migrates as 53 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Formulation

Supplied as 0.2 μm filtered solution in 50 mM Tris, 150 mM NaCl, pH7.5 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 3 months under sterile conditions.

Bioactivity

The Tyk2 assay is performed using the ADP-GloTM Kinase Assay kit which quantifies the amount of ADP produced by the Tyk2 reaction. The ADP-GloTM Reagent is added to terminate the kinase reaction and to deplete the remaining ATP, and then the Kinase Detection Reagent is added to convert ADP to ATP and to measure the newly synthesized ATP using luciferase/luciferin reaction.The specific activity is >400 pmol/min/mg (QC tested).

Background

Tyk2 was the first member of the JAK family that was described (the other members are JAK1, JAK2, and JAK3). It has been implicated in IFN-α, IL-6, IL-10 and IL-12 signaling. Tyk2 functions primarily in IL-12 and type I-IFN signaling. Tyk2 deficiency has more dramatic effects in human cells than in mouse cells. However, in addition to IFN-α and -β and IL-12 signaling, Tyk2 has major effects on the transduction of IL-23, IL-10, and IL-6 signals. Recently, it has been recognized that IL-12 and IL-23 share ligand and receptor subunits that activate Tyk2. Tyk2 is activated by IL-10, and its deficiency affects the ability to generate and respond to IL-10.

Clinical and Translational Updates