Recombinant MATK protein (His tag)

Catalog Number	546978
Synonyms	CSK homologous kinase; CHK; Hematopoietic consensus tyrosine-lacking kinase; Protein kinase HYL; Tyrosine-protein kinase CTK
Species	Human
Expression System	E. coli
Accession	P42679
Molecular Weight	Predictes a molecular mass of 53.07 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 54 kDa band.

Product Information

Sequence Region	46-507
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 46-507 aa (P42679) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Megakaryocyte-associated tyrosine-protein kinase (MATK) fragment (residues 46-507) is a high-purity protein designed for studying the functional domains of this key hematopoietic regulator. This fragment includes the complete SH3, SH2, and Protein kinase domains, making it an ideal tool for investigating SRC-family kinase regulation and signal transduction mechanisms in immune and blood cells. Megakaryocyte-associated tyrosine-protein kinase (MATK), also known as CSK homologous kinase or CHK, plays a significant role in signal transduction within hematopoietic cells. It functions as a key regulator of SRC-family tyrosine kinases by specifically phosphorylating their C-terminal regulatory tyrosine residues, thereby acting as a negative regulator of kinase activity. Evidence suggests MATK plays an inhibitory role in T-cell proliferation control, indicating its importance in immune regulation. The protein exhibits dual subcellular localization, primarily residing in the cytoplasm and membrane fractions. In platelets, approximately 90% of MATK localizes to the membrane and translocates to the cytoskeleton upon thrombin stimulation, highlighting its dynamic role in cellular signaling pathways and platelet activation processes.