

Product datasheet for **TP527110**

Itk (NM_010583) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse IL2 inducible T cell kinase (Itk), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR227110 representing NM_010583 Red =Cloning site Green =Tags(s)
	<p>MNNFILLLEEQLIKKSQQKRRTSPSNFKVRFVLTKASLAYFEDRHGKKRTLKGSIELSRIKCVEIVKSDI SIPCHYKYPFQVVDNYLLYVFAPDCESRQRWVLTKEETRNNNSLVSKYHPNFWMDGRWRCCSQLEKP A VGCAPYDPSKNASKKPLPPTPEDNRRSFQEPEETLVIALYDYQTNDPQELALRCDEEYLLDSSEIHWWWR VQDKNGHEGYAPSSYLVEKSPNNLETYEWYNKSISRDKAEKLLDGTGKEGAFMVRDSRTPGTYTVSVFTK AIISENPCIKHYHIKETNDSPKRYVAEKYVFDSEIPLLIQYHQYNGGGLVTRLRYPVCSWRQKAPVTAGL RYGKWWIQPSELTFFVQIEGSGQFGLVHLGYWLNKDKVAIKTIQEGAMSEEDFIEEAEMMKLSHPKLVQL YGVLCLEQAPICLVFEFMEHGLSDYLRSGRGLFAAETLLGMCLDVCEGMAYLEKACVIHRDLAARNCLVG ENQVIKVSDFGMTRFVLDQYTSSTGTGKFPVKWASPEVFSFSRYSSKSDVWSFGVLMWEVFESEKIPYEN RSNSEVEDISTGFRLYKPRLASCHVYQIMNHCWKEKPEDRPPFSQLLSQLAEIAEAGL</p> <p>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</p>
Tag:	C-MYC/DDK
Predicted MW:	72 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.



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RefSeq: NP_034713

Locus ID: 16428

UniProt ID: Q03526

RefSeq Size: 4284

Cytogenetics: 11 27.75 cM

RefSeq ORF: 1857

Synonyms: Emt; Tcsk; Tsk

Summary: Tyrosine kinase that plays an essential role in regulation of the adaptive immune response. Regulates the development, function and differentiation of conventional T-cells and nonconventional NKT-cells. When antigen presenting cells (APC) activate T-cell receptor (TCR), a series of phosphorylation lead to the recruitment of ITK to the cell membrane, in the vicinity of the stimulated TCR receptor, where it is phosphorylated by LCK. Phosphorylation leads to ITK autophosphorylation and full activation. Once activated, phosphorylates PLCG1, leading to the activation of this lipase and subsequent cleavage of its substrates. In turn, the endoplasmic reticulum releases calcium in the cytoplasm and the nuclear activator of activated T-cells (NFAT) translocates into the nucleus to perform its transcriptional duty. Phosphorylates 2 essential adapter proteins: the linker for activation of T-cells/LAT protein and LCP2. Then, a large number of signaling molecules such as VAV1 are recruited and ultimately lead to lymphokine production, T-cell proliferation and differentiation. Phosphorylates TBX21 at 'Tyr-525' and mediates its interaction with GATA3 (PubMed:15662016).[UniProtKB/Swiss-Prot Function]