

## Product datasheet for TP511635

### Jak3 (NM\_010589) Mouse Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse Janus kinase 3 (Jak3), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR211635 protein sequence <b>Red</b> =Cloning site <b>Green</b> =Tags(s)

MAPPSEETPLIPQRSCSLSSSEAGALHVLLPPRGPQRLSFSFGDYLAEDLCVRAAKACGILPVYHSL  
FALATEDFSCWFPPSHIFCIEDVDTQVLVYRLRFYFPDWFGLETCHRFGLRKDLTSAILDLHVLEHLFAQ  
HRSDLVSGRLPVGLSMKEQGEFLSLAVLDAQMAREQAQRPGELLKTVSYKACLPPSLRDVIQGNFVTR  
RRIRRTVVLALRRVACQADRYALMAKYILDRLERLHPAATTETFRVGLPGAQEEPGLLRVAGDNGISWSS  
GDQELFQTFCDFPEIVDVSQAPRVGPAGEHRLVTVTRMDGHILEAEFGLPEALSFVALVDGYFRLIC  
DSRHYFCKEVAPRLLLEEEAELCHGPITLDFAIHKLKAAGSLPGTYILRRSPQDYDSFLLTACVQTPGLP  
DYKGCLIRQDPSGAFSLVGLSQPHRSLRELLAACWNSGLRVDGAALNLTSCCAPRPKEKSNLIVRRGCT  
PAPAPGCSPSCCALTQLSFHTIPTDSLEWHENLGHGSFTKIFRGRREVDGETHDSEVLLKVMDSRHRN  
CMESFLEAASLMSQVSYPHLVLLHGVCMAAGDSIMVQEFVYLGAIMYLRKRGLVLSASWKLQVTKQLAYA  
LNYLEDKGLPHGNVSARKVLLAREGGDGNPPFIKLSDPGVSPTVLSLEMLTD RIPWVAPECLQEAQTLCL  
EADKWGFGATTWEVFSGGPAHITSLEPAKCLKFYEDQGQLPALKWTELAGLITQCMAYDPGRRPSFRIL  
RDLNGLITSDYELLSDPTPGIPSPRDEL CGGAQLYACQDPAIFEERHLKYISLLGKGNFGSVELCRYDPL  
GDNTGPLVAVKQLQHSGPDQQRDFQREIQILKALHSDFIVKYRGVSYGPGRQSLRLVMEYLP SGCLRDFL  
QRHRARLHTDRLLLFAWQICKGMEYLGARRCVHRDLAARNILVESEAHVKIADFLAKLLPLGKDYVVVR  
EPGQSPIFWYAPESLSDNIFSRQSDVWSFGWVLYELFTYCDKSCSPSAEFLRMMGPEREGPPLCRLELL  
AEGRRLLPPPPTCPTEVQELMQLCWAPSPHDPAFGTLSPQLDALWRGRPG

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

Tag:	C-MYC/DDK
Predicted MW:	122.6 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



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<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C after receiving vials.
<b>Stability:</b>	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
<b>RefSeq:</b>	<a href="#">NP_034719</a>
<b>Locus ID:</b>	16453
<b>UniProt ID:</b>	<a href="#">Q62137</a> , <a href="#">A0A0R4J0R7</a>
<b>RefSeq Size:</b>	3950
<b>Cytogenetics:</b>	8 34.43 cM
<b>RefSeq ORF:</b>	3303
<b>Synonyms:</b>	fae; wil
<b>Summary:</b>	<p>Non-receptor tyrosine kinase involved in various processes such as cell growth, development, or differentiation. Mediates essential signaling events in both innate and adaptive immunity and plays a crucial role in hematopoiesis during T-cells development. In the cytoplasm, plays a pivotal role in signal transduction via its association with type I receptors sharing the common subunit gamma such as IL2R, IL4R, IL7R, IL9R, IL15R and IL21R. Following ligand binding to cell surface receptors, phosphorylates specific tyrosine residues on the cytoplasmic tails of the receptor, creating docking sites for STATs proteins. Subsequently, phosphorylates the STATs proteins once they are recruited to the receptor. Phosphorylated STATs then form homodimer or heterodimers and translocate to the nucleus to activate gene transcription. For example, upon IL2R activation by IL2, JAK1 and JAK3 molecules bind to IL2R beta (IL2RB) and gamma chain (IL2RG) subunits inducing the tyrosine phosphorylation of both receptor subunits on their cytoplasmic domain. Then, STAT5A AND STAT5B are recruited, phosphorylated and activated by JAK1 and JAK3. Once activated, dimerized STAT5 translocates to the nucleus and promotes the transcription of specific target genes in a cytokine-specific fashion.</p> <p>[UniProtKB/Swiss-Prot Function]</p>