

Product datasheet for TP523008

Tbk1 (NM_019786) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse TANK-binding kinase 1 (Tbk1), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR223008 protein sequence Red=Cloning site Green=Tags(s)

MQSTSNHLWLLSDILGQGATANVFRGRHKKTGDLAVKVFNNISFLRPVDVQMREFEVLKKNHKNIVKL
FAIEEETTTRHKVLI MEFCPCGSLYTVLEEPSNAYGLPESEFLIVLRDVGGMNHLRENGIVHRDIKPGN
IMRVIGEDGQSVMYKLTDFGAARELEDDEQFVSLYGTEEYLHPDMYERAVLRKDHQKKYGATVDLWSVGVT
FYHAATGSLPFRPFEGPRRKEVMYKIITGKPSGAISGVQKAENGPIDWSGDMPLSCSLSQLQALLTPV
LANILEADQEKCWGFDQFFAETSDVLHRMVIHVFSLQHMTAHKIYIHSYNTAAVFHELVIKQTKIVSSNQ
ELIYEGRRLLVLELGRLAQHFPKTTEENPIFVTSREQLNTVGLRYEKISLPKIHPRYDLGDASMAKAVTG
VVCYACRTASTLLLYQELMRKGVRLVVELVKDDYNETVHKKTEVITLDFCIRNIEKTVKVIYKLMKVN
EAAELGEISDIHTKLLRLSSSQGTIESSLQDISSRLSPGGLLADTWAHQEGTHPRDRNVEKLQVLLNCIT
EIYYQFKKDKAERRLAYNEEQIHKFDKQKLYHATKAMSHFSEECVRKYEA FKDKSEEWMRKMLHLRKQL
LSLTNQCFDIEEEVSKYQDYTNELQETLPQKMLAASGGVKHAMAPIYSSNTLVEMTLGMKKLKEEMEGV
VKELAENNHILERFGSLTMDGGLRNVDCL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-MYC/DDK
Predicted MW:	83.4 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.



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Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_062760
Locus ID:	56480
UniProt ID:	Q9WUN2 , A1L361
RefSeq Size:	3031
Cytogenetics:	10 D2
RefSeq ORF:	2190
Synonyms:	1200008B05Rik; AI462036; AW048562
Summary:	<p>Serine/threonine kinase that plays an essential role in regulating inflammatory responses to foreign agents (PubMed:10581243, PubMed:15210742, PubMed:15661922). Following activation of toll-like receptors by viral or bacterial components, associates with TRAF3 and TANK and phosphorylates interferon regulatory factors (IRFs) IRF3 and IRF7 as well as DDX3X (By similarity). This activity allows subsequent homodimerization and nuclear translocation of the IRFs leading to transcriptional activation of pro-inflammatory and antiviral genes including IFNA and IFNB (By similarity). In order to establish such an antiviral state, TBK1 form several different complexes whose composition depends on the type of cell and cellular stimuli (By similarity). Thus, several scaffolding molecules including FADD, TRADD, MAVS, AZI2, TANK or TBKBP1/SINTBAD can be recruited to the TBK1-containing-complexes (By similarity). Plays a key role in IRF3 activation: acts by first phosphorylating innate adapter proteins MAVS, TMEM173/STING and TICAM1 on their pLxIS motif, leading to recruitment of IRF3, thereby licensing IRF3 for phosphorylation by TBK1 (By similarity). Under particular conditions, functions as a NF-kappa-B effector by phosphorylating NF-kappa-B inhibitor alpha/NFKBIA, IKBKB or RELA to translocate NF-Kappa-B to the nucleus (By similarity). Restricts bacterial proliferation by phosphorylating the autophagy receptor OPTN/Optineurin on 'Ser-177', thus enhancing LC3 binding affinity and antibacterial autophagy (By similarity). Phosphorylates SMCR8 component of the C9orf72-SMCR8 complex, promoting autophagosome maturation (By similarity). Phosphorylates and activates AKT1 (By similarity). Seems to play a role in energy balance regulation by sustaining a state of chronic, low-grade inflammation in obesity, wich leads to a negative impact on insulin sensitivity (PubMed:23396211).[UniProtKB/Swiss-Prot Function]</p>