

## Product datasheet for TP527620

### Prkcz (NM\_008860) Mouse Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse protein kinase C, zeta (Prkcz), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR227620 representing NM_008860 <b>Red</b> =Cloning site <b>Green</b> =Tags(s)

MPSRTDPKMDRSGGRVRLKAHYGGDILITSVDAMTTFKDLCEEVRDMCGLHQHPLTLKWVDEGDPCTV  
SSQMELEEAFLVLCQGRDEVLIHVFPSEIQPGMPCPGEDKSIYRRGARRWRKLYRANGHLFQAKRFNR  
GAYCGQCSEIRWGLSRQGYRCINCKLLVHKRCHVLVPLTCRRHMDSVMPSQEPPVDDKNDGVDLPSEETD  
GIAYISSSRKHNDNIKDDSEDLKPVIDGVDGKISQGLGLQDFDLIRVIGRGSYAKVLLVRLKKNQIYAM  
KVVKKELVHDDDEDIDWVQTEKHVFEQASSNPFLVGLHSCFQTTSRFLVIEYVNGGDLMFHMQRQRKLPE  
EHARFYAAEICIALNFLHERGIYRDLKLDNVLLDADGHIKLTGYMCKEGLPGDSTTFCGTPNYIAP  
EILRGEEYGFSDWWALGVLMFEMMAGRSPFDIITDNPDMNTEDYLFQVILEKPIRIPRFLSVKASHVLK  
GFLNKDPKERLGCRPQTGFSDIKSHAFFRSIDWDLLEKKQTLPPFQPQITDDYGLDNFDTQFTSEPVQLT  
PDEDVIKRIDQSEFEGFEYINPLLLSAEESV

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

Tag:	C-MYC/DDK
Predicted MW:	68.1 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:	<a href="#">NP_032886</a>
Locus ID:	18762
UniProt ID:	<a href="#">Q02956</a> , <a href="#">Q3V341</a>
RefSeq Size:	4283
Cytogenetics:	4 86.17 cM
RefSeq ORF:	1776
Synonyms:	AI098070; aPKCzeta; C80388; nPKC-zeta; Pkcz; R74924; zetaPKC
Summary:	<p>Calcium- and diacylglycerol-independent serine/threonine-protein kinase that functions in phosphatidylinositol 3-kinase (PI3K) pathway and mitogen-activated protein (MAP) kinase cascade, and is involved in NF-kappa-B activation, mitogenic signaling, cell proliferation, cell polarity, inflammatory response and maintenance of long-term potentiation (LTP). Upon lipopolysaccharide (LPS) treatment in macrophages, or following mitogenic stimuli, functions downstream of PI3K to activate MAP2K1/MEK1-MAPK1/ERK2 signaling cascade independently of RAF1 activation. Required for insulin-dependent activation of AKT3, but may function as an adapter rather than a direct activator. Upon insulin treatment may act as a downstream effector of PI3K and contribute to the activation of translocation of the glucose transporter SLC2A4/GLUT4 and subsequent glucose transport in adipocytes. In EGF-induced cells, binds and activates MAP2K5/MEK5-MAPK7/ERK5 independently of its kinase activity and can activate JUN promoter through MEF2C. Through binding with SQSTM1/p62, functions in interleukin-1 signaling and activation of NF-kappa-B with the specific adapters RIPK1 and TRAF6. Participates in TNF-dependent transactivation of NF-kappa-B by phosphorylating and activating IKBKB kinase, which in turn leads to the degradation of NF-kappa-B inhibitors. In migrating astrocytes, forms a cytoplasmic complex with PARD6A and is recruited by CDC42 to function in the establishment of cell polarity along with the microtubule motor and dynein. In association with FEZ1, stimulates neuronal differentiation in PC12 cells. In the inflammatory response, is required for the T-helper 2 (Th2) differentiation process, including interleukin production, efficient activation of JAK1 and the subsequent phosphorylation and nuclear translocation of STAT6. May be involved in development of allergic airway inflammation (asthma), a process dependent on Th2 immune response. In the NF-kappa-B-mediated inflammatory response, can relieve SETD6-dependent repression of NF-kappa-B target genes by phosphorylating the RELA subunit at 'Ser-311'. In vein endothelial cells treated with the oxidant peroxyxynitrite, phosphorylates STK11 leading to nuclear export of STK11, subsequent inhibition of PI3K/Akt signaling, and increased apoptosis. Phosphorylates VAMP2 in vitro (By similarity).</p> <p>[UniProtKB/Swiss-Prot Function]</p>