

Product datasheet for **TP323466M**

BRSK2 (NM_003957) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human BR serine/threonine kinase 2 (BRSK2), 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC223466 representing NM_003957 Red =Cloning site Green =Tags(s)

MTSTGKDGGQAHAQYVGPYRLEKTLGKGQTGLVKLGVHCVTCQKVAIKIVNREKLSSESVLMKVEREAIL
KLIEHPHVLKLHDVYENKKYLYLVLEHVSGGELFDYLVKKGRLTPKEARKFFRQIISALDFCHSHSICHR
DLKPENLLLDEKNNIRIADFGMASLQVGDSLLETSCGSPHYACPEVIRGEKYDGRKADVWSCGVILFALL
VGALPFDDDLNRQLEKVKRGVFMHPHFIPDCQSLLRGMIEVDAARRLTLEHIQKHIWYIGGKNEPEPE
QPIPRKVQIRSLPSLEDIDPDVLDMSHSLGCFRDRNKLLQDLLSEENQEKMIYFLLDRKERYPSQEDE
DLPPRNEIDPPRKRVDSPMLNRHGKRRPERKSMEVLSVTDGGSPVPARRAIEAQAQHGQSRSRISGASSGL
STSPLSSPRVTPHPSRGSPLPTPKGTPVHTPKESPAGTPNPTPPSSPSVGGVPWRARLNSIKNSFLGSP
RFHRRKLQVPTPEEMSNLTPESSELAKKSWFGNFISLEKEEQIFVVIKDKPLSSIKADIVHAFLSIPSL
SHSVISQTSFRAEYKATGGPAVFQKPVKFQVDITYTEGGEAQKENGISYVTFLLSGPSRRFKRVETIQ
AQLLSTHDPPAAQHLSDTTNCMEMMTGRLSKCGIIPKS

TRTRPLE**QKLISEEDLA**ANDILDYKDDDDKV

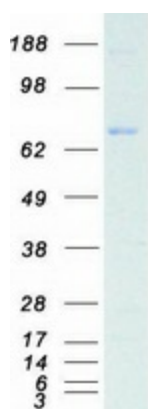
Tag:	C-Myc/DDK
Predicted MW:	74.6 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
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.



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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:	<u>NP_003948</u>
Locus ID:	9024
UniProt ID:	<u>Q8IWQ3</u>
RefSeq Size:	3516
Cytogenetics:	11p15.5
RefSeq ORF:	2004
Synonyms:	C11orf7; PEN11B; SAD1; SADA; STK29
Summary:	Serine/threonine-protein kinase that plays a key role in polarization of neurons and axonogenesis, cell cycle progress and insulin secretion. Phosphorylates CDK16, CDC25C, MAPT/TAU, PAK1 and WEE1. Following phosphorylation and activation by STK11/LKB1, acts as a key regulator of polarization of cortical neurons, probably by mediating phosphorylation of microtubule-associated proteins such as MAPT/TAU at 'Thr-529' and 'Ser-579'. Also regulates neuron polarization by mediating phosphorylation of WEE1 at 'Ser-642' in postmitotic neurons, leading to down-regulate WEE1 activity in polarized neurons. Plays a role in the regulation of the mitotic cell cycle progress and the onset of mitosis. Plays a role in the regulation of insulin secretion in response to elevated glucose levels, probably via phosphorylation of CDK16 and PAK1. While BRSK2 phosphorylated at Thr-174 can inhibit insulin secretion (PubMed:22798068), BRSK2 phosphorylated at Thr-260 can promote insulin secretion (PubMed:22669945). Regulates reorganization of the actin cytoskeleton. May play a role in the apoptotic response triggered by endoplasmic reticulum (ER) stress. [UniProtKB/Swiss-Prot Function]
Protein Families:	Druggable Genome, Protein Kinase

Product images:



Coomassie blue staining of purified BRSK2 protein (Cat# [TP323466]). The protein was produced from HEK293T cells transfected with BRSK2 cDNA clone (Cat# [RC223466]) using MegaTran 2.0 (Cat# [TT210002]).