Recombinant Mouse Brsk2 Protein, Myc/DDK-tagged

Cat. No. Brsk2-1895M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Purified recombinant protein of mouse full-length BR serine/threonine kinase 2 (Brsk2), with C-terminal MYC/DDK tag, expressed in HEK293T cells.
Species	Mouse
Source	HEK293
Description	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-504' and 'Ser-554'. Also regulates neuron polarization by mediating phosphorylation of WEE1 at 'Ser-642' in post-mitotic 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-175 can inhibit insulin secretion, BRSK2 phosphorylated at Thr-261 can promote insulin secretion. Regulates reorganization of the actin cytoskeleton. May play a role in the apoptotic response triggered by endoplasmic reticulum (ER) stress.
Molecular Mass	80.4 kDa

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Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 μg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Brsk2 BR serine/threonine kinase 2 [Mus musculus (house mouse)]
Official Symbol	Brsk2
Synonyms	BRSK2; BR serine/threonine kinase 2; serine/threonine-protein kinase BRSK2; BR serine/threonine-protein kinase 2; serine/threonine-protein kinase SAD-A; brain-specific serine/threonine-protein kinase 2; SADA; SAD-A; 4833424K13Rik
Gene ID	75770
mRNA Refseq	NM_001009930
Protein Refseq	NP_001009930
UniProt ID	Q69Z98

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