

BRSK2 Protein, Human (Sf9, GST)

Cat. No.:	HY-P701718
Synonyms:	BRSK2; Serine/threonine-protein kinase BRSK2; Brain-selective kinase 2; Brain-specific serine/threonine-protein kinase 2; BR serine/threonine-protein kinase 2; Serine/threonine-protein kinase 29; Serine/threonine-protein kinase SAD-A
Species:	Human
Source:	Sf9 insect cells
Accession:	Q8IYW3 (T2-P736)
Gene ID:	9024
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	BRSK2 Protein serves as a serine/threonine-protein kinase with multifaceted roles in the regulation of cellular processes. It is a key player in the polarization of neurons and axonogenesis, as well as cell cycle progression and insulin secretion. Upon phosphorylation and activation by STK11/LKB1, BRSK2 assumes a crucial role in orchestrating the polarization of cortical neurons, potentially through phosphorylation of microtubule-associated proteins, including MAPT/TAU at 'Thr-529' and 'Ser-579.' Additionally, BRSK2 influences neuron polarization by mediating the phosphorylation of WEE1 at 'Ser-642,' down-regulating WEE1 activity in polarized neurons. The kinase is integral to the regulation of mitotic cell cycle progression and the onset of mitosis. Its involvement in insulin secretion, responsive to elevated glucose levels, is noteworthy, with distinct phosphorylation sites at Thr-174 and Thr-260 exhibiting differential effects on insulin secretion. Beyond these functions, BRSK2 plays a role in actin cytoskeleton reorganization and may contribute to the apoptotic response triggered by endoplasmic reticulum (ER) stress.
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Caution: Product has not been fully validated for medical applications. For research use only.

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