

Active Recombinant Human BRSK2, GST-tagged

Cat. No. BRSK2-257H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full-length human BRSK2 was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
Description	BRSK2 is a brain-selective serine/threonine kinase 2 that is mainly expressed in the brain, with weaker expression in testis and pancreas. BRSK2 expressed in insect cells specifically phosphorylates WEE1A, CDC25C and CDC25B in an in vitro assay. DNA damage induced by ultraviolet (UV) irradiation or methyl methane sulfonate, but not by ionizing radiation, enhanced endogenous BRSK2 kinase activity in a caffeine-sensitive manner and caused translocation of BRSK2 from the cytoplasm to the nucleus. Overexpression of BRSK2 induces G2/M arrest in HeLa cells while small interfering RNA against BRSK2 partly abrogated UV-induced G2/M arrest. Mammalian BRSK2 kinases are required for neuronal polarization.
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Bio-activity	The specific activity of BRSK2 was determined to be 105 nmol /min/mg
Molecular Mass	~108 kDa
Purity	>95% by densitometry

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Applications	Kinase Assay, Western Blot
Storage	Store product at –70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.1 µg/µl
GENE INFORMATION	
Gene Name	BRSK2 BR serine/threonine kinase 2 [Homo sapiens]
Official Symbol	BRSK2
Synonyms	BRSK2; BR serine/threonine kinase 2; C11orf7, chromosome 11 open reading frame 7 , STK29; serine/threonine-protein kinase BRSK2; PEN11B; serine/threonine kinase 29; protein kinase SAD1B; brain-selective kinase 2; serine/threonine-protein kinase 29; BR serine/threonine-protein kinase 2; serine/threonine-protein kinase SAD-A; brain-specific serine/threonine-protein kinase 2; SAD1; STK29; C11orf7; FLJ41362;
Gene ID	9024
mRNA Refseq	NM_001256627
Protein Refseq	NP_001243556
MIM	609236
UniProt ID	Q8IWQ3
Chromosome	11p15.5

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Location	
Pathway	LKB1 signaling events, organism-specific biosystem;
Function	ATP binding; magnesium ion binding; nucleotide binding; protein serine/threonine kinase activity; tau-protein kinase activity;

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