



Recombinant Protein Technical Manual

Recombinant Human CASK Kinase Protein (His & GST Tag)
RPES4774

Product Data:

Product SKU: RPES4774

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: O14936-4

Protein Information:

Molecular Mass: 130 kDa

AP Molecular Mass: 120 kDa

Tag: N-His & GST

Bio-activity:

Purity: > 82 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

Formulation: Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10% gly

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: CAGH39;CAMGUK;CMG;FGS4;LIN2;MICPCH;MRXSNA;TNRC8

Immunogen Information:

Sequence: Ala 2-Tyr 898

Background:

Peripheral plasma membrane protein CASK, also known as calcium/calmodulin-dependent serine protein kinase, CASK and LIN2, is a nucleus, cytoplasm and cell membrane protein which belongs to the MAGUK family. CASK / LIN2 contains one guanylate kinase-like domain, two L27 domains, one PDZ (DHR) domain, one protein kinase domain and one SH3 domain. CASK / LIN2 is ubiquitously expressed. Expression of CASK / LIN2 is significantly greater in brain relative to kidney, lung, and liver and in fetal brain and kidney relative to lung and liver. CASK / LIN2 is a multidomain scaffolding protein with a role in synaptic transmembrane protein anchoring and ion channel trafficking. CASK / LIN2 contributes to neural development and regulation of gene expression via interaction with the transcription factor TRB1. It binds to cell-surface proteins, including amyloid precursor protein, neuroligins and syndecans. CASK / LIN2 may mediate a link between the extracellular matrix and the actin cytoskeleton via its interaction with syndecan and with the actin/spectrin-binding protein 4.1. Defects in CASK are the cause of mental retardation X-linked CASK-related (MRXCASK). Mental retardation is characterized by significantly below average general intellectual functioning associated with impairments in adaptive behavior and manifested during the developmental period. Defects in CASK are also the cause of FG syndrome type 4 which is an X-linked disorder characterized by mental retardation, relative macrocephaly, hypotonia and constipation.