Recombinant Protein Technical Manual

Recombinant Human CASK Kinase Protein

RPES4752

Product Data:

Product SKU: RPES4752

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: O14936-4

Protein Information:

Molecular Mass: 102.1 kDa

AP Molecular Mass: 102 kDa

Tag:

Bio-activity:

Purity: > 90 % as determined by reducing SDS-PAGE.

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

Storage: Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

Shipping: This product is provided as liquid. It is shipped at frozen temperature with blue ice or dry ice.

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

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, neurexins 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 adaptative 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.