

## Recombinant Human CASK Kinase Protein

**Catalog Number: PKSH030972**

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

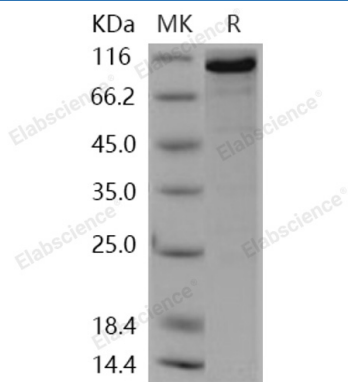
### Description

<b>Species</b>	Human
<b>Source</b>	Baculovirus-Insect Cells-derived Human CASK Kinase protein Ala 2-Tyr 898
<b>Calculated MW</b>	102.1 kDa
<b>Observed MW</b>	102 kDa
<b>Accession</b>	O14936-4
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 90 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 90 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

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 LIM27 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.

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