

Recombinant Human DCAMKL1 Protein

Catalog No. PKSH031076

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

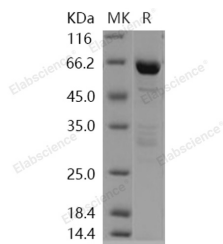
Description

Synonyms	CL1;CLICK1;DCAMKL1;DCDC3A;DCLK
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-Val 705
Accession	O15075-1
Calculated Molecular Weight	78.5 kDa
Observed molecular weight	64 kDa
Tag	None
Bioactivity	Not validated for activity

Properties

Purity	> 80 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	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.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20mM Tris, 500mM NaCl, 10% glycerol, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 80 % as determined by reducing SDS-PAGE.

Background

DCAMKL1; also known as DCLK1; is a member of the protein kinase superfamily and the doublecortin family. It contains two N-terminal doublecortin domains; which bind microtubules and regulate microtubule polymerization; a C-

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terminal serine/threonine protein kinase domain; which shows substantial homology to Ca²⁺/calmodulin-dependent protein kinase; and a serine/proline-rich domain in between the doublecortin and the protein kinase domains; which mediates multiple protein-protein interactions. DCAMKL1 is involved in several different cellular processes; including neuronal migration; retrograde transport; neuronal apoptosis and neurogenesis. Its microtubule-polymerizing activity is independent of its protein kinase activity. DCAMKL1 may be involved in a calcium-signaling pathway controlling neuronal migration in the developing brain. It may also participate in functions of the mature nervous system.