Recombinant Human VRK1 Protein (His & GST Tag)

Catalog No. PKSH031091

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

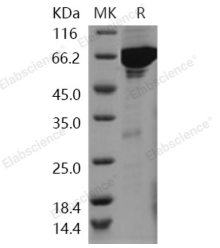
Description

Synonyms	PCH1;PCH1A
Species	Human
Expression Host	Baculovirus-Insect Cells
Sequence	Met 1-Lys 396
Accession	Q99986
Calculated Molecular Weight	73.0 kDa
Observed molecular weight	65-70 kDa
Tag	N-His-GST
Bioactivity	Not validated for activity

Properties

Purity	> 88 % 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℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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% glycerol 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



> 88 % as determined by reducing SDS-PAGE.

Background

VRK1 is a member of the vaccinia-related kinase (VRK) family of serine/threonine protein kinases. Serine/threonine protein kinases are tumor suppressor that controls the activity of AMP-activated protein kinase family members; thereby

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playing a role in various processes such as cell metabolism; cell polarity; apoptosis and DNA damage response. VRK1 contains 1 protein kinase domain and localizes to the nucleus. VRK1 gene is widely expressed in human tissues and has increased expression in actively dividing cells; such as those in testis; thymus; fetal liver; and carcinomas. As a serine/threonine kinase; VRK1 phosphorylates 'Thr-18' of p53/TP53 and may thereby prevent the interaction between p53/TP53 and MDM2. Defects in VRK1 are the cause of pontocerebellar hypoplasia type 1 (PCH1); also called pontocerebellar hypoplasia with infantile spinal muscular atrophy or pontocerebellar hypoplasia with anterior horn cell disease. PCH1 is characterized by an abnormally small cerebellum and brainstem; central and peripheral motor dysfunction from birth; gliosis and anterior horn cell degeneration resembling infantile spinal muscular atrophy.

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