Recombinant Human PPP3CA/CALNA Protein (His Tag)

Catalog Number: PKSH030577

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

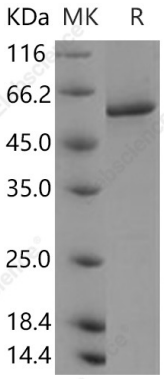
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human PPP3CA/CALNA protein Ser2-Gln521, with an N-terminal His
Calculated MW	60.8 kDa
Observed MW	60 kDa
Accession	Q08209-1
Bio-activity	Using the Octet RED System, the affinity constant (Kd) of human PPPP3CA-His bound to Human PPIA-His was 0.9 nM.

Properties

Purity	> 94% 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 20 mM Tris, 500 mM NaCl, pH 8.0, 10% glycerol 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.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 94 % as determined by reducing SDS-PAGE.

Background

PPP3CA, also known as protein phosphatase 2B, is a member of the PPP phosphatase family, PP-2B subfamily. It is the alpha catalytic subunit of protein phosphatase 2B (PP2B). PP2B is a holoenzyme that is comprised of a catalytic subunit associated with regulatory subunits. It is a calcium regulated enzyme that is activated by calmodulin and participates in the signaling cascades involved in development of the nervous, cardiovascular, and musculoskeletal systems. PPP3CA activates the T cells of the immune system and can be blocked by drugs. It also activates NFATc (a transcription factor) by dephosphorylating it. The activated NFATc is subsequently translocated into the nucleus, where it upregulates the expression of interleukin 2. PPP3CA interacts with CRTC2, MYOZ1, MYOZ2 and MYOZ3. It also interacts with DNM1 L. The interaction dephosphorylates DNM1 L and regulates its translocation to mitochondria.

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