

Recombinant Mouse SDPR Protein (aa 2-180, His Tag)

Catalog No. PKSM040587

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

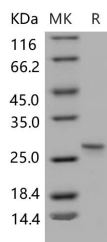
Description

Synonyms	SDPR
Species	Mouse
Expression Host	E.coli
Sequence	Gly 2-Ala 180
Accession	NP_620080.1
Calculated Molecular Weight	21 kDa
Observed molecular weight	28 kDa
Tag	N-His
Bioactivity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
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 PBS, pH 7.4, 30% 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



> 95 % as determined by reducing SDS-PAGE.

Background

Serum deprivation-response protein, also known as Phosphatidylserine-binding protein, Cavin-2 and SDPR, is a member of the PTRF / SDPR family. SDPR is highly expressed in heart and lung, and expressed at lower levels in brain, kidney,

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liver, pancreas, placenta, and skeletal muscle. SDPR is a new regulator of caveolae biogenesis. SDPR is up-regulated in asynchronously growing fibroblasts following serum deprivation but not following contact inhibition and Down-regulated during synchronous cell cycle re-entry. Caveolae are plasma membrane invaginations with a characteristic flask-shaped morphology. They function in diverse cellular processes, including endocytosis. Loss of SDPR causes loss of caveolae. SDPR binds directly to PTRF and recruits PTRF to caveolar membranes. Overexpression of SDPR, unlike PTRF, induces deformation of caveolae and extensive tubulation of the plasma membrane. SDPR overexpression results in increased caveolae size and leads to the formation of caveolae-derived tubules containing Shiga toxin. SDPR is a membrane curvature inducing component of caveolae, and that STB-induced membrane tubulation is facilitated by caveolae. Pleckstrin and SDPR are phosphorylated by protein kinase C (PKC), the interaction between pleckstrin and SDPR was shown to be independent of PKC inhibition or activation. SDPR may facilitate the translocation of nonphosphorylated pleckstrin to the plasma membrane in conjunction with phosphoinositides that bind to the C-terminal PH domain.