Recombinant Rat RB1 Protein (His Tag)

Catalog Number: PDER100220

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

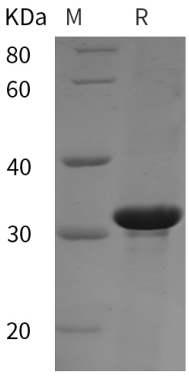
Description

Species	Rat
Source	E.coli-derived Rat RB1 protein Arg229-Met450, with an N-terminal His
Calculated MW	24.3 kDa
Observed MW	32 kDa
Accession	P33568
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg 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 a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Rat RB1 proteins, 2 μg/lane of Recombinant Rat RB1 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 32 kDa.

Background

Retinoblastoma 1 protein (RB-1, also retinoblastoma-associated protein, pp110, and p105-Rb) is a 110 kDa tumor suppressor gene and member of the retinoblastoma protein family. Rat RB-1 is 920 amino acids in length. The protein contains a Pocket domain (aa 366-763), which is comprised of two other domains, domain A (aa 366-572) and domain B (aa 632-763), and a “spacer” (aa 573-631). The Pocket domain binds to threonine-phosphorylated domain C (aa 763-920), which thereby prevents interaction with heterodimeric E2F/DP transcription factor complexes. RB-1 is expressed in the retina. The underphosphorylated, active form of RB-1 interacts with E2F1 and represses its transcription activity, leading to cell cycle arrest. Defects in RB-1 lead to the childhood cancer retinoblastoma.

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