

## Recombinant Rat RB1 protein (His Tag)

Catalog Number: PDER100220

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

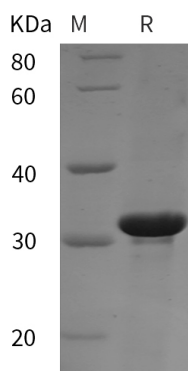
### Description

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

### Properties

<b>Purity</b>	> 95% as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 10 EU/mg of the protein as determined by the LAL method
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
<b>Reconstitution</b>	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



> 95 % as determined by reducing SDS-PAGE.

### 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.

### For Research Use Only