Recombinant Human CDKN2D/p19ink4d Protein (GST Tag)

Catalog Number: PKSH030816

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

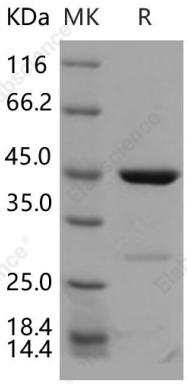
Description

Species	Human
Source	E.coli-derived Human CDKN2D/p19ink4d protein Met 10Leu 166, with an N-terminal GST
Calculated MW	44.9 kDa
Observed MW	46 kDa
Accession	P55273
Bio-activity	Immobilized human GST-CDKN2D at 10 μg/ml (100 μl/well) can bind biotinylated human GST-CDK4, The EC_{50} of biotinylated human GST-CDK4 is 0.52-1. 2 μg/ml.

Properties

Purity	> 90% 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 7.5 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



> 90 % as determined by reducing SDS-PAGE.

Background

Cyclin-dependent kinase inhibitor 2D (also known as CDKN2D or p19ink4d), a member of the INK4 family of cyclin-dependent kinase (CDK) inhibitors, negatively regulates the cyclin D-CDK4/6 complexes, which promote G1/S transition by phosphorylating the retinoblastoma tumor-suppressor gene product. It is clearly shown that DNA repair is the main target of p19ink4d effect and that diminished apoptosis is a downstream event. Experiments has uncovered a role of p19INK4d as a regulator of DNA-damage-induced apoptosis and suggest that it protects cells from undergoing apoptosis by allowing a more efficient DNA repair. It has been demonstrated that p19INK4d expression enhances cell survival under genotoxic conditions. Previous work has shown that inactivation of the cyclin-dependent kinase inhibitor (CKI) p19(Ink4d) leads to progressive hearing loss attributable to inappropriate DNA replication and subsequent apoptosis of hair cells. It may also involved in male reproductive function including testicular atrophy, alteration in serum follicle stimulating hormone, qualitative increase in germ cell apoptosis, and delayed kinetics of meiotic prophase markers.

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