



Recombinant Protein Technical Manual

**Recombinant Human CDKN2D/p19ink4d Protein
(GST Tag)(Active)**
RPES2494

Product Data:

Product SKU: RPES2494

Size: 20µg

Species: Human

Expression host: E. coli

Uniprot: P55273

Protein Information:

Molecular Mass: 44.9 kDa

AP Molecular Mass: 46 kDa

Tag: N-GST

Bio-activity: Immobilized human GST-CDKN2D at 10 µg/ml (100 µl/well) can bind biotinylated human GST-CDK4, The EC50 of biotinylated human GST-CDK4 is 0.52.2 µg/ml.

Purity: > 90 % as determined by reducing SDS-PAGE.

Endotoxin: Please contact us for more information.

Storage: 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

Reconstitution: Please refer to the printed manual for detailed information.

Application: Functional ELISA

Synonyms: INK4D;p19;p19-INK4D

Immunogen Information:

Sequence: Met 10Leu 166

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.