

## GLIPR1 Protein, Mouse, Recombinant (His)

### General Information

Synonyms:	RTVP-1;2410114O14Rik;mRTVP-1;GLI pathogenesis-related 1;RTVP1
Protein Construction:	A DNA sequence encoding the mouse GLIPR1 (NP_082884.1) (Met1-Thr223) was expressed with a C-terminal polyhistidine tag. Predicted N terminal: Ser 18
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q4QQK5
Molecular Weight:	25.1 kDa (predicted); 28-32 kDa (reducing conditions)

### QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

### Preparation and Storage

**Reconstitution:**  
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

**Stability & Storage:**  
It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

**Shipping:**  
In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Glioma pathogenesis-related protein 1, also known as Protein RTVP-1, GLIPR1 and GLIPR, is a single-pass membrane protein which belongs to the CRISP family. GLIPR1 / RTVP-1 was expressed in high levels in glioblastomas, whereas its expression in low-grade astrocytomas and normal brains was very low. Transfection of glioma cells with small interfering RNAs targeting GLIPR1 / RTVP-1 decreased cell proliferation in all the cell lines examined and induced cell apoptosis in some of them. Overexpression of GLIPR1 / RTVP-1 increased

astrocyte and glioma cell proliferation and the anchorage-independent growth of the cells. In addition, overexpression of GLIPR1 / RTVP-1 rendered glioma cells more resistant to the apoptotic effect of tumor necrosis factor-related apoptosis-inducing ligand and serum deprivation. GLIPR1 / RTVP-1 regulated the invasion of glioma cells was evident by their enhanced migration through Matrigel and by their increased invasion in a spheroid confrontation assay. The increased invasive potential of the GLIPR1 / RTVP-1 overexpressors was also shown by the increased activity of matrix metalloproteinase 2 in these cells. The expression of GLIPR1 / RTVP-1 is correlated with the degree of malignancy of astrocytic tumors and that GLIPR1 / RTVP-1 is involved in the regulation of the growth, survival, and invasion of glioma cells. GLIPR1 / RTVP-1 is a potential therapeutic target in gliomas.

### Reference

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