

GLIPR1 Protein, Human, Recombinant (His)

General Information

Synonyms:	RTVP1;GLI pathogenesis-related 1;CRISP7;GLIPR
Protein Construction:	A DNA sequence encoding the human GLIPR1 (NP_006842.2) extracellular domain (Met 1-Arg 232) was expressed, with a C-terminal polyhistidine tag. Predicted N terminal: Ala 22
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P48060-1
Molecular Weight:	25.7 kDa (predicted); 27 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:	> 97 % 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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- Heo SK, et al. (2007) HVEM signaling in monocytes is mediated by intracellular calcium mobilization. *J Immunol.* 179(9): 6305-10.
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