

## PIK3IP1 Protein, Human, Recombinant (hFc)

### General Information

Synonyms:	phosphoinositide-3-kinase interacting protein 1;HGFL;hHGFL(S)
Protein Construction:	A DNA sequence encoding the human PIK3IP1 (AAH11049.1) (Met1-Thr168) was expressed, fused with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Ser 22
Species:	Human
Expression Host:	HEK293 Cells
Accession:	AAH11049.1
Molecular Weight:	42.7 kDa (predicted); 55 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

PIK3IP1 contains 1 kringle domain and is a negative regulator of phosphatidylinositol-3-kinase (PI3K), suppresses the development of hepatocellular carcinoma. PI3K is a well-known regulator of cell division, motility, metabolism and survival in most cell types. Proper liver function and development highly depend on intact PI3K signal transduction. Aberrant PI3K pathway signaling in the liver is associated with hepatocellular carcinoma. PI3K signaling is involved in the homeostasis of lipid and glucose metabolism. Activation of the PI3K pathway induces

lipogenesis and glycogenesis in the liver, since both Akt overexpressing transgenic mice and PTEN knockout mice develop fatty liver and hypoglycemia. PIK3IP1 overexpression can contribute to glucose homeostasis and fatty deposition.

### Reference

He X, et al. (2008) PIK3IP1, a negative regulator of PI3K, suppresses the development of hepatocellular carcinoma. *Cancer Res.* 68(14):5591-8.

Gao P, et al. (2008) Both PIK3IP1 and its novel found splicing isoform, PIK3IP1-v1, are located on cell membrane and induce cell apoptosis. *Beijing Da Xue Xue Bao.* 40(6):572-7.

Zhu Z, et al. (2007) PI3K is negatively regulated by PIK3IP1, a novel p110 interacting protein. *Biochem Biophys Res Commun.* 358(1):66-72.

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Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481