

## Recombinant Human GIF protein(N-His)

**Catalog Number:** PKSH034179

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

### Description

<b>Species</b>	Human
<b>Source</b>	E.coli-derived Human GIF protein Met 1-Tyr 417, with an C-terminal His
<b>Calculated MW</b>	46.2 kDa
<b>Observed MW</b>	45 kDa
<b>Accession</b>	P27352
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 98 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 0.1 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 8.0. 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.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Background

Gastric intrinsic factor, also known as GIF, belongs to the of the cobalamin transport protein family. It is a glycoprotein produced by the parietal cells of the stomach. Gastric intrinsic factor plays a key role in the absorption of vitamin B12 on in the small intestine. Vitamin B12 binds to haptocorrin after entry into the stomach. The resulting complex enters the duodenum, where pancreatic enzymes digest haptocorrin. In the less acidic environment of the small intestine, B12 can then bind to gastric intrinsic factor. This new complex travels to the ileum, where special epithelial cells endocytose the m. Inside the cell, B12 dissociates once again and binds to another protein, transcobalamin II. The new complex can exit the epithelial cells to enter the liver.

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