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## Product Data Sheet

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Product Name: IF Human  
Cat. No.: GP23709  
Batch No.: 1

### Product Data

Purity	>98%	Source	Sf9 Insect Cells.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Gastric intrinsic factor; Intrinsic factor; INF; IF; GIF; IFMH; TCN3; Cobalamin/Vitamin B-12 binding transport protein.		
Formulation	The protein solution (0.7mg/ml) contains 20mM HEPES pH-8, 100mM NaCl, 20% Glycerol.		

### Introduction

Intrinsic Factor is a member of the cobalamin transport protein family. It encodes a glycoprotein secreted by parietal cells of the gastric mucosa and is required for adequate absorption of vitamin B12 in the terminal ileum. Vitamin B12 is essential for erythrocyte maturation and mutations in the Intrinsic Factor may lead to congenital pernicious anemia. Upon entry into the stomach, vitamin B12 binds to one of two B12 binding proteins present in the gastric fluid. In the less acidic environment of the small intestine, these proteins dissociate from the vitamin, allowing it to bind to intrinsic factor and enter the portal circulation through a receptor in the ileal mucosa specific for the B12-intrinsic factor complex.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

Intrinsic Factor Human Recombinant produced in baculovirus is a glycosylated, polypeptide chain containing having a molecular mass of 55,000 Dalton. The Intrinsic Factor is fused to a hexa-histidine at the C-terminus and purified by proprietary chromatographic techniques for removal of bound Vitamin B-12.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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