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## Product Data Sheet

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Product Name: GNB1 Human  
 Cat. No.: GP23575  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Guanine Nucleotide Binding Protein (G Protein) Beta Polypeptide 1; Transducin Beta Chain 1; GNB1.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGSMSELDQL RQEAQLKNQ IRDARKACAD ATLSQITNNI DPVGRIQMRT RRTLGRHLAK IYAMHWGTDS RLLVSASQDG KLIWDSYTT NKVHAIPRS SWVMTCA YAP SGNYVACGGL DNICSIYNLK TREGNVRVSR ELAGHTGYLS CCRFLDDNQI VTSSGDTTCA LWDIETGQQT TTFTGHTGDV MSLSLAPDTR LRVSGACDAS AKLWDVREGM CRQTFTGHES DINAICFFPN GNAFATGSDD ATCRLFDLRA DQELMTYSHD NIICGITSVS FSKSGRLLLA GYDDFNCNVW DALKADRAGV LAGHDNRVSC LGVTDDGMAV ATGSWDSFLK IWN.		
Formulation	The GNB1 solution (0.25mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.4M UREA and 10% glycerol.		

### Introduction

Heterotrimeric guanine nucleotide-binding proteins (G proteins) which integrate signals between receptors and effector proteins, are comprised of an alpha, a beta and a gamma subunit. The alpha, beta and gamma subunits are encoded by families of related genes. GNB1 encodes a beta subunit. Beta subunits are vital regulators of alpha subunits, as well as of certain signal transduction receptors and effectors. G proteins are involved as a modulator or transducer in numerous transmembrane signaling systems. The beta and gamma chains are necessary for the GTPase activity, for replacement of GDP by GTP, and for G protein-effector interaction.

### Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer

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

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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

GNB1 Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 363 amino acids (1-340) and having a molecular mass of 39.8 kDa. GNB1 is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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