



**LD Biopharma, Inc.**  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human NAPG Protein  
**Catalog Number:** hRP-0800  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human N-ethylmaleimide-sensitive factor attachment protein, gamma (NAPG) gene encodes soluble NSF attachment protein gamma. The soluble NSF attachment proteins (SNAPs) enable N-ethyl-maleimide-sensitive fusion protein (NSF) to bind to target membranes. NSF and SNAPs appear to be general components of the intracellular membrane fusion apparatus, and their action at specific sites of fusion must be controlled by SNAP receptors particular to the membranes being fused. The product of this gene mediates platelet exocytosis and controls the membrane fusion events of this process. Recent publication has indicated that human NAPG protein may play a role in bipolar disorder disease.

Full-length recombinant human NAPG (312 aa) gene was constructed with 15 aa N-terminal T7 tag and expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

**Gene Symbol:** NAPG (GAMMASNAP)  
**Accession Number:** NP\_003817  
**Species:** Human  
**Size:** 50 µg / Vial  
**Composition:** 1.0 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, sucrose and DTT.  
**Storage:** In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.

### Key References

Wilson,D.W., et al., *A multisubunit particle implicated in membrane fusion*. J. Cell Biol. 117 (3), 531-538 (1992)



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Whiteheart,S.W., et al., *Soluble N-ethylmaleimide-sensitive fusion attachment proteins (SNAPs) bind to a multi-SNAP receptor complex in Golgi membranes.* J. Biol. Chem. 267 (17), 12239-12243 (1992)

Lemons,P.P., et al., *Regulated secretion in platelets: identification of elements of the platelet exocytosis machinery.* Blood 90 (4), 1490-1500 (1997)

Li,X., et al., *Association study on the NAPG gene and bipolar disorder in the Chinese Han population.* Neurosci. Lett. 457 (3), 159-162 (2009)

## **Applications**

1. May be used for in vitro human neuronal cell differentiation regulation study with intracellular protein delivery of this protein.
2. As soluble / native protein, may be used as enzymatic substrate protein for kinase and ubiquitin assay development.
3. May be used for mapping PFN2 protein-protein interaction.
4. As potential diagnostic biomarker for bipolar disorder diseases.
5. As antigen for specific antibody production.

## **Quality Control**

1. Purity: > 90% by SDS-PAGE.

## **Recombinant Protein Sequence**

MASMTGGQQMGRGEFMAAQKINEGLEHLAKAEKYLKTGFLKWKPDYDSAASEYGKAAVAFKNAK  
QFEQAKDACLREAVAHENNRALFHAAKAYEQAGMMLKEMQKLP EAVQLIEKASMMYLENGTPDT  
AAMALERAGKLIENVDPEKAVQLYQQTANV FENEERLRQAVELLGKASRLLVGRRFDEAALS I  
QKEKNIYKEIENYPTCYKKTIAQVLVHLHRNDYVAAERCVRESYSIPGFNGSEDCAALEQLLEG  
YDQQDQDQVSDVCNSPLFKYMDNDYAKLGLSLVVPGGGIKKKSPATPQAKPDGVTATADEEED  
EYSGGLC