

# GNA13 Antibody (Center) Blocking Peptide

Synthetic peptide Catalog # BP17044c

## Specification

## **GNA13** Antibody (Center) Blocking Peptide - Product Information

Primary Accession

#### <u>Q14344</u>

## **GNA13** Antibody (Center) Blocking Peptide - Additional Information

Gene ID 10672

**Other Names** 

Guanine nucleotide-binding protein subunit alpha-13, G alpha-13, G-protein subunit alpha-13, GNA13

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions** This product is for research use only. Not for use in diagnostic or therapeutic procedures.

## **GNA13** Antibody (Center) Blocking Peptide - Protein Information

Name GNA13

#### Function

Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems (PubMed:<a

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href="http://www.uniprot.org/citations/15240885" target="_blank">15240885</a>, PubMed:<a href="http://www.uniprot.org/citations/16787920" target="_blank">16787920</a>, PubMed:<a href="http://www.uniprot.org/citations/16705036" target="_blank">16705036</a>, PubMed:<a href="http://www.uniprot.org/citations/16705036" target="_blank">16705036</a>, PubMed:<a href="http://www.uniprot.org/citations/16705036" target="_blank">16705036</a>, PubMed:<a href="http://www.uniprot.org/citations/16705036" target="_blank">16705036</a>, PubMed:<a href="http://www.uniprot.org/citations/16705036" target="_blank">27084452</a>). Activates effector molecule RhoA by binding and activating RhoGEFs (ARHGEF1/p115RhoGEF, ARHGEF11/PDZ-RhoGEF and ARHGEF12/LARG) (PubMed:<a
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href="http://www.uniprot.org/citations/15240885" target="\_blank">15240885</a>, PubMed:<a href="http://www.uniprot.org/citations/12515866" target="\_blank">12515866</a>).

GNA13-dependent Rho signaling subsequently regulates transcription factor AP-1 (activating protein-1) (By similarity). Promotes tumor cell invasion and metastasis by activating RhoA/ROCK signaling pathway (PubMed:<a href="http://www.uniprot.org/citations/16787920"">http://www.uniprot.org/citations/16787920</a>

target="\_blank">16787920</a>, PubMed:<a href="http://www.uniprot.org/citations/16705036" target="\_blank">16705036</a>, PubMed:<a href="http://www.uniprot.org/citations/27084452" target="\_blank">27084452</a>). Inhibits CDH1-mediated cell adhesion in process independent from Rho activation (PubMed:<a href="http://www.uniprot.org/citations/11976333"



target="\_blank">11976333</a>).

#### **Cellular Location**

Cell membrane; Lipid-anchor. Melanosome. Cytoplasm. Nucleus Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065). Detected in the cytoplasm of Leydig cells and in the seminiferous epithelium, including differentiating cells from the spermatogonia to mature spermatozoa stages (PubMed:18703424). In round spermatids, also present in the nuclei (PubMed:18703424).

#### **Tissue Location**

Expressed in testis, including in Leydig cells and in the seminiferous epithelium, in differentiating cells from the spermatogonia to mature spermatozoa stages and round spermatids (at protein level). Expressed in 99.2% of spermatozoa from healthy individuals, but only in 28.6% of macrocephalic spermatozoa from infertile patients (at protein level).

#### **GNA13 Antibody (Center) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

<u>Blocking Peptides</u>

#### GNA13 Antibody (Center) Blocking Peptide - Images

#### GNA13 Antibody (Center) Blocking Peptide - Background

Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems.

#### **GNA13 Antibody (Center) Blocking Peptide - References**

Rose, J. Phd, et al. Mol. Med. (2010) In press :Grzelinski, M., et al. Clin. Cancer Res. 16(5):1402-1415(2010)Gong, H., et al. Science 327(5963):340-343(2010)Saito, M., et al. Cell. Signal. 22(1):41-46(2010)Chen, L., et al. J. Biol. Chem. 284(40):27409-27415(2009)