

**GNA11 Blocking Peptide (Center)**  
**Synthetic peptide**  
**Catalog # BP21291c****Specification**

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**GNA11 Blocking Peptide (Center) - Product Information**Primary Accession [P29992](#)**GNA11 Blocking Peptide (Center) - Additional Information****Gene ID** 2767**Other Names**

Guanine nucleotide-binding protein subunit alpha-11, G alpha-11, G-protein subunit alpha-11, Guanine nucleotide-binding protein G(y) subunit alpha, GNA11, GA11

**Target/Specificity**

The synthetic peptide sequence is selected from aa 115-126 of HUMAN GNA11

**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.

**GNA11 Blocking Peptide (Center) - Protein Information****Name** GNA11**Synonyms** GA11**Function**

Guanine nucleotide-binding proteins (G proteins) function as transducers downstream of G protein-coupled receptors (GPCRs) in numerous signaling cascades (PubMed:<a href="http://www.uniprot.org/citations/31073061" target="\_blank">31073061</a>). The alpha chain contains the guanine nucleotide binding site and alternates between an active, GTP-bound state and an inactive, GDP-bound state (PubMed:<a href="http://www.uniprot.org/citations/31073061" target="\_blank">31073061</a>). Signaling by an activated GPCR promotes GDP release and GTP binding (PubMed:<a href="http://www.uniprot.org/citations/31073061" target="\_blank">31073061</a>). The alpha subunit has a low GTPase activity that converts bound GTP to GDP, thereby terminating the signal (PubMed:<a href="http://www.uniprot.org/citations/31073061" target="\_blank">31073061</a>). Both GDP release and GTP hydrolysis are modulated by numerous regulatory proteins (PubMed:<a href="http://www.uniprot.org/citations/31073061" target="\_blank">31073061</a>). Signaling is

mediated via phospholipase C-beta-dependent inositol lipid hydrolysis for signal propagation: activates phospholipase C-beta: following GPCR activation, GNA11 activates PLC-beta (PLCB1, PLCB2, PLCB3 or PLCB4), leading to production of diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) (PubMed:<a href="http://www.uniprot.org/citations/31073061" target="\_blank">31073061</a>). Transduces FFAR4 signaling in response to long-chain fatty acids (LCFAs) (PubMed:<a href="http://www.uniprot.org/citations/27852822" target="\_blank">27852822</a>). Together with GNAQ, required for heart development (By similarity). In the respiratory epithelium, transmits OXGR1-dependent signals that lead to downstream intracellular Ca(2+) release and mucocilliary clearance of airborne pathogens.

**Cellular Location**

Cell membrane; Lipid-anchor. Cytoplasm. Note=In testicular cells, expressed exclusively in the cytoplasm.

**Tissue Location**

Expressed in testis..

**GNA11 Blocking Peptide (Center) - Protocols**

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

- [Blocking Peptides](#)

**GNA11 Blocking Peptide (Center) - Images****GNA11 Blocking Peptide (Center) - Background**

Guanine nucleotide-binding proteins (G proteins) are involved as modulators or transducers in various transmembrane signaling systems. Acts as an activator of phospholipase C.

**GNA11 Blocking Peptide (Center) - References**

Jiang M.,et al.Proc. Natl. Acad. Sci. U.S.A. 88:3907-3911(1991).  
Bai X.H.,et al.Submitted (JUL-1997) to the EMBL/GenBank/DDBJ databases.  
Puhl H.L. III,et al.Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.  
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.  
Grimwood J.,et al.Nature 428:529-535(2004).