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GUCY2C Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP7136a

Specification

GUCY2C Antibody (Center) Blocking Peptide - Product Information

Primary Accession P25092

GUCY2C Antibody (Center) Blocking Peptide - Additional Information

Gene ID 2984

Other Names
Heat-stable enterotoxin receptor, STA receptor, hSTAR, Guanylyl cyclase C, GC-C, Intestinal guanylate cyclase, GUCY2C, GUC2C, STAR

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7136a was selected from the Center region of human GUCY2C. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

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.

GUCY2C Antibody (Center) Blocking Peptide - Protein Information

Name GUCY2C {ECO:0000303|PubMed:22521417, ECO:0000312|HGNC:HGNC:4688}

Function
Guanylyl cyclase that catalyzes synthesis of cyclic GMP (cGMP) from GTP (PubMed:1718270, PubMed:11950846, PubMed:23269669, PubMed:22521417, PubMed:22436048). Receptor for the E.coli heat-stable enterotoxin; E.coli enterotoxin markedly stimulates the accumulation of cGMP in mammalian cells expressing GUCY2C (PubMed:1718270, PubMed:1680854). Also activated by the endogenous peptides guanylin and uroguanylin (PubMed:<a

href="http://www.uniprot.org/citations/8381596" target="_blank">8381596).

Cellular Location
Cell membrane; Single-pass type I membrane protein Endoplasmic reticulum membrane; Single-pass type I membrane protein. Note=The 145 kDa plasma membrane form of GUCY2C contains sialic acid and galactose residues, while a differencially glycosylated 130 Kda form is a high mannose form that is resident in the endoplasmic reticulum and may serve as the precursor for the cell surface form

GUCY2C Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

GUCY2C Antibody (Center) Blocking Peptide - Images

GUCY2C Antibody (Center) Blocking Peptide - Background

Guanylyl cyclase C (GC-C) is a transmembrane receptor expressed primarily in the intestine that regulates chloride secretion via the cystic fibrosis transmembrane conductance regulator. Binding of GC-C to either the endogenous peptide guanylin or the bacterially derived heat-stable enterotoxin STa, results in increased levels of cGMP and the stimulation of water and chloride secretion. In the case of exposure to STa, this leads to debilitating secretory diarrhea. GUCY2C is a receptor for STa, and is also activated by the endogenous peptide guanylin. The GUCY2C receptor has an extracellular ligand-binding domain and a cytoplasmic guanylyl cyclase domain, as do members of the natriuretic peptide receptor family.

GUCY2C Antibody (Center) Blocking Peptide - References

Singh, R., J. Biol. Chem. 278(27):24342-24349 (2003).Tien, Y.W., et al., Clin. Cancer Res. 9(13):4891-4896 (2003).Sindice, A., et al., J. Biol. Chem. 277(20):17758-17764 (2002).Scott, R.O., et al., J. Biol. Chem. 277(25):22934-22941 (2002).Park, J., et al., Cancer Epidemiol. Biomarkers Prev. 11(8):739-744 (2002).