10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PIMT (PIPMT) Antibody (Center G406) Blocking peptide
Synthetic peptide
Catalog # BP1921a

Specification

PIMT (PIPMT) Antibody (Center G406) Blocking peptide - Product Information

Primary Accession Q96RS0

PIMT (PIPMT) Antibody (Center G406) Blocking peptide - Additional Information

Gene ID 96764

Other Names
Trimethylguanosine synthase, 211-, CLL-associated antigen KW-2, Cap-specific guanine-N2 methyltransferase, Hepatocellular carcinoma-associated antigen 137, Nuclear receptor coactivator 6-interacting protein, PRIP-interacting protein with methyltransferase motif, PIMT, PIPMT, TGS1, HCA137, NCOA6IP, PIMT

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1921a was selected from the Center region of human PIPMT. 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.

PIMT (PIPMT) Antibody (Center G406) Blocking peptide - Protein Information

Name TGS1

Synonyms HCA137, NCOA6IP, PIMT

Function
Catalyzes the 2 serial methylation steps for the conversion of the 7-monomethylguanosine (m(7)G) caps of snRNAs and snoRNAs to a 2,2,7-trimethylguanosine (m(2,2,7)G) cap structure. The enzyme is specific for guanine, and N7 methylation must precede N2 methylation. Hypermethylation of the m7G cap of U snRNAs leads to their concentration in nuclear foci, their colocalization with coilin and the formation of canonical Cajal bodies (CBs). Plays a role in transcriptional regulation.

Cellular Location

Cytoplasm. Nucleus, Cajal body. Nucleus, nucleolus. Note=A 90 kDa isoform is found in the nucleus while a 55 kDa isoform is found in the cytoplasm and colocalizes with the tubulin network.

Tissue Location
Ubiquitously expressed. High expression in heart, skeletal muscle, kidney, liver and placenta

PIMT (PIPMT) Antibody (Center G406) Blocking peptide - Protocols

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

- Blocking Peptides

PIMT (PIPMT) Antibody (Center G406) Blocking peptide - Images

PIMT (PIPMT) Antibody (Center G406) Blocking peptide - Background

Nuclear receptor coactivators participate in the transcriptional activation of specific genes by nuclear receptors. PIPMT contains a 9-amino acid methyltransferase motif I (VVDAFCGVG) and an invariant segment (GXXGXXI) found in K-homology motifs of many RNA-binding proteins. Immunofluorescence studies shows that PIPMT and PRIP proteins are colocalized in the nucleus. PIPMT binds 5-adenosyl-L-methionine, the methyl donor for the methyltransfer reaction, and it also binds RNA, suggesting that it is an RNA methyltransferase. Overexpression of PIPMT enhances the transcriptional activity of PPARG and RXR, and this enhancement is further stimulated by overexpression of PRIP, suggesting that PIPMT is a component of nuclear receptor signal transduction that acts through PRIP.

PIMT (PIPMT) Antibody (Center G406) Blocking peptide - References

Beausoleil, S.A., et al., Proc. Natl. Acad. Sci. U.S.A. 101(33):12130-12135 (2004).Enunlu, I., et al., Biochem. Biophys. Res. Commun. 309(1):44-51 (2003).Surapureddi, S., et al., Proc. Natl. Acad. Sci. U.S.A. 99(18):11836-11841 (2002).Misra, P., et al., J. Biol. Chem. 277(22):20011-20019 (2002).Wang, Y., et al., J. Immunol. 169(2):1102-1109 (2002).