

Mouse Pim1 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP14077b**Specification**

Mouse Pim1 Antibody (C-term) Blocking peptide - Product InformationPrimary Accession [P06803](#)**Mouse Pim1 Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 18712**Other Names**

Serine/threonine-protein kinase pim-1, Pim1, Pim-1

Target/Specificity

The synthetic peptide sequence used to generate the antibody AP14077b was selected from the C-term region of Mouse Pim1. 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.

Mouse Pim1 Antibody (C-term) Blocking peptide - Protein Information**Name** Pim1**Synonyms** Pim-1**Function**

Proto-oncogene with serine/threonine kinase activity involved in cell survival and cell proliferation and thus providing a selective advantage in tumorigenesis (PubMed:15199164, PubMed:1825810). Exerts its oncogenic activity through: the regulation of MYC transcriptional activity, the regulation of cell cycle progression and by phosphorylation and inhibition of proapoptotic proteins (BAD, MAP3K5, FOXO3) (By similarity). Phosphorylation of MYC leads to an increase of MYC protein stability and thereby an increase of transcriptional activity (PubMed:18438430). The stabilization of MYC exerted by PIM1 might explain partly the strong synergism between these two oncogenes in tumorigenesis (PubMed:18438430).

target="_blank">18438430). Mediates survival signaling through phosphorylation of BAD, which induces release of the anti-apoptotic protein Bcl-X(L)/BCL2L1 (PubMed:15280015). Phosphorylation of MAP3K5, another proapoptotic protein, by PIM1, significantly decreases MAP3K5 kinase activity and inhibits MAP3K5-mediated phosphorylation of JNK and JNK/p38MAPK subsequently reducing caspase-3 activation and cell apoptosis (By similarity). Stimulates cell cycle progression at the G1- S and G2-M transitions by phosphorylation of CDC25A and CDC25C (By similarity). Phosphorylation of CDKN1A, a regulator of cell cycle progression at G1, results in the relocation of CDKN1A to the cytoplasm and enhanced CDKN1A protein stability (By similarity). Promotes cell cycle progression and tumorigenesis by down-regulating expression of a regulator of cell cycle progression, CDKN1B, at both transcriptional and post-translational levels (By similarity). Phosphorylation of CDKN1B, induces 14-3-3 proteins binding, nuclear export and proteasome-dependent degradation (By similarity). May affect the structure or silencing of chromatin by phosphorylating HP1 gamma/CBX3 (By similarity). Acts also as a regulator of homing and migration of bone marrow cells involving functional interaction with the CXCL12-CXCR4 signaling axis (PubMed:19687226). Acts as a positive regulator of mTORC1 signaling by mediating phosphorylation and inhibition of DEPDC5 component of the GATOR1 complex (PubMed:31548394). Acts as a negative regulator of innate immunity by mediating phosphorylation and inactivation of GBP1 in absence of infection: phosphorylation of GBP1 induces interaction with 14-3-3 protein sigma (SFN) and retention in the cytosol (By similarity). Also phosphorylates and activates the ATP- binding cassette transporter ABCG2, allowing resistance to drugs through their excretion from cells (By similarity). Promotes brown adipocyte differentiation (PubMed:27923061).

Cellular Location

Cytoplasm. Nucleus. Cell membrane. Note=Mainly located in the cytoplasm

Mouse Pim1 Antibody (C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

Mouse Pim1 Antibody (C-term) Blocking peptide - Images

Mouse Pim1 Antibody (C-term) Blocking peptide - Background

Pim1 may affect the structure or silencing of chromatin by phosphorylating HP1 gamma/CBX3 (By similarity). Promotes the G1/S transition of the cell cycle via up-regulation of CDK2 activity and phosphorylation of CDKN1B, resulting in enhanced nuclear export and proteasome-dependent degradation of CDKN1B (By similarity). Also represses CDKN1B transcription by phosphorylating and inactivating the transcription factor FOXO3 (By similarity). Plays a role in signal transduction in blood cells (By similarity). Contributes to both cell proliferation and survival thus providing a selective advantage in tumorigenesis (By similarity).