

**PIM1 Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV10607****Specification**

---

**PIM1 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P26794</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	35631

**PIM1 Antibody - Additional Information****Gene ID** 24649**Application & Usage**

**Western blot analysis (0.5-4 µg/ml).**  
**However, the optimal conditions should be determined individually. The antibody recognizes ~33 kDa of PIM1 isoform from samples of human, mouse and rat origins. Reactivity to other species has not been determined.**

**Other Names**

PIM, PIM1, PIM-1, Proviral Integration Site 1

**Target/Specificity**

PIM1

**Antibody Form**

Liquid

**Appearance**

Colorless liquid

**Formulation**

100 µg (0.5 mg/ml) affinity purified rabbit anti-PIM1 polyclonal antibody in phosphate (PBS, pH 7.2) containing 30% glycerol, 0.5 % BSA and 0.01% thimerosal.

**Handling**

The antibody solution should be gently mixed before use.

**Reconstitution & Storage**

-20 °C

**Background Descriptions**

**Precautions**

PIM1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**PIM1 Antibody - 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. 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. The stabilization of MYC exerted by PIM1 might explain partly the strong synergism between these two oncogenes in tumorigenesis. Mediates survival signaling through phosphorylation of BAD, which induces release of the anti-apoptotic protein Bcl- X(L)/BCL2L1 (By similarity). 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. Stimulates cell cycle progression at the G1-S and G2-M transitions by phosphorylation of CDC25A and CDC25C. 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. 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. Phosphorylation of CDKN1B, induces 14-3-3 proteins binding, nuclear export and proteasome-dependent degradation. 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 (By similarity). Acts as a positive regulator of mTORC1 signaling by mediating phosphorylation and inhibition of DEPDC5 component of the GATOR1 complex. 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 (By similarity).

**Cellular Location**

Cytoplasm. Nucleus. Cell membrane

**PIM1 Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**PIM1 Antibody - Images**

**PIM1 Antibody - Background**

The proto-oncogene Pim1 belongs to a family of serine/threonine protein kinases that are highly conserved through evolution in multicellular organisms. Pim1 is involved in the control of cytokine-mediated cell proliferation, differentiation and survival of lymphoid and myeloid cells as well as others. Expression of Pim1 can be stimulated by a variety of growth factors and is regulated at four different levels: transcriptional, post-transcriptional, translational and post-translational. Recently, Pim1 has been shown to enhance the activities of p100, c-Myb and Cdc 25a and in part this might explain reported effects of Pim1 on mitogenesis.