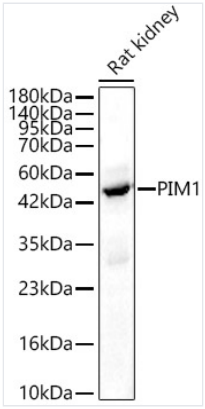
PIM1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PIM1, Polyclonal Antibody
Full Product Name	PIM1 Rabbit pAb
Product Gene Name	anti-PIM1 antibody
Product Synonym Names	PIM1; PIM; serine/threonine-protein kinase pim-1
Immunogen Sequence	IRYHRYHGRS AAVWSLGILL YDMVCGDIPF EHDEEIIRGQ VFFRQRVSSE CQHLIRWCLA LRPSDRPTFE EIQNHPWMQD VLLPQETAEI HLHSLSPGPS K
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	PBS with 0.05% proclin300, 50% glycerol, pH7.3.
Purity/Purification	Affinity purification
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.
Molecular Weight	Calculated MW: 35kDa/45kDa Observed MW: 44kDa
OMIM	164960
3D Structure	ModBase 3D Structure for P11309
Cross Reactivity	Human, Mouse, Rat
Immunogen	A synthetic peptide corresponding to a sequence within amino acids 213-313 of human PIM1 (NP_002639.1).
Product Categories/Family for anti-PIM1 antibody	Epigenetics & Nuclear Signaling; Chromatin Modifying Enzymes; Phosphorylation; Chromatin Remodeling; Cancer; Signal Transduction; Kinase; Serine/threonine kinases; Cell Biology & Developmental Biology; Apoptosis; Immunology & Inflammation; IL-6 Receptor S
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-PIM1 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-PIM1 antibody	WB: 1:500-1:1000 ELISA: Recommended starting concentration is 1ug/mL. Please optimize the concentration based on your specific assay requirements.
Related Product Information for anti-PIM1 antibody	The protein encoded by this gene belongs to the Ser/Thr protein kinase family, and PIM subfamily. This gene is expressed primarily in B-lymphoid and myeloid cell lines, and is overexpressed in hematopoietic malignancies and in prostate cancer. It plays a role in signal transduction in blood cells, contributing to both cell proliferation and survival, and thus provides a selective advantage in tumorigenesis. Both the human and orthologous mouse genes have been reported to encode two isoforms (with preferential cellular localization) resulting from the use of alternative in-frame translation initiation codons, the upstream non-AUG (CUG) and downstream AUG codons (PMIDs:16186805, 1825810).
Other Notes	Small volumes of anti-PIM1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for PIM1 purchase	MBS9148440 is an antibody targeting PIM1. Also known as PIM1 Rabbit pAb. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-PIM1 antibody
Western blot analysis of lysates from Rat kidney, using PIM1 Rabbit pAb (MBS9148440) at 1:600 dilution.Secondary antibody: HRP-conjugated Goat anti-Rabbit IgG (H+L) (AS014) at 1:10000 dilution.Lysates/proteins: 25ug per lane.Blocking buffer: 3% nonfat dry milk in TBST.Detection: ECL Basic Kit (RM00020).Exposure time: 60s.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PIM1. It may not necessarily be applicable to this product.

NCBI GI #	342307046
NCBI GeneID	5292
NCBI Accession #	NP_001230115.1
UniProt Primary Accession #	P11309
UniProt Secondary Accession #	Q38RT9; Q5T7H7; Q96RG3
UniProt Related Accession #	P11309
GenBank Nucleotide #	NM_001243186.1
UniProt Protein Name	Serine/threonine-protein kinase pim-1
Protein Family	Protein
UniProt Gene Name	PIM1
UniProt Entry Name	PIM1_HUMAN

UniProt Comments for PIM1	Pim1: a proto-oncogene serine/threonine kinase 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). Phosphorylation of MYC leads to an increase of MYC protein stability and thereby an increase of transcriptional activity. The stabilization of MYC exerced 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. Phosphorylation of ASK1 an other proapoptotic protein, by PIM1, significantly decreases ASK1 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 p21Cip1, a regulator of cell cycle progression at G1, results in the relocation of p21Cip1 to the cytoplasm and enhanced p21Cip1 protein stability. Promote cell cycle progression and tumorigenesis by down-regulating expression of a regulator of cell cycle progression, p27Kip1, at both transcriptional and post- translational levels. Phosphorylation of p27Kip1,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. Acts also as a regulator of homing and migration of bone marrow cells involving functional interaction with the CXCL12-CXCR4 signaling axis. Isoform 2 is isolated as a monomer whereas isoform 1 complexes with other proteins. Binds to RP9. Isoform 1, but not isoform 2, binds BMX. Isoform 2 interacts with p27Kip1 and FOXO3. Interacts with BAD. Interacts with PPP2CA; this interaction promotes dephosphorylation of PIM1, ubiquitination and proteasomal degradation. Interacts with HSP90, this interaction stabilizes PIM1 protein levels. Ubiquitinated form interacts with HSP70 and promotes its proteosomal degradation. Strongly induced in leukocytes by the JAK/STAT pathway in response to cytokines. Induced by different cellular stresses, heat shock and cytotoxic agents. Expressed primarily in cells of the hematopoietic and germline lineages. 2 isoforms of the human protein are produced by alternative initiation. Both isoforms are expressed in prostate cancer cell lines. Protein type: Protein kinase, CAMK; Oncoprotein; Protein kinase, Ser/Thr (non-receptor); Kinase, protein; EC 2.7.11.1; CAMK group; PIM family Chromosomal Location of Human Ortholog: 6p21.2 Cellular Component: cytoplasm; plasma membrane; nucleus Molecular Function: protein serine/threonine kinase activity; protein binding; manganese ion binding; transcription factor binding; ribosomal small subunit binding; ATP binding Biological Process: cell proliferation; apoptosis; negative regulation of transcription factor activity; multicellular organismal development; protein amino acid autophosphorylation; regulation of mitotic cell cycle; cell cycle; G1/S-specific positive regulation of cyclin-dependent protein kinase activity; hyaluronan metabolic process; protein amino acid phosphorylation; negative regulation of apoptosis
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