

Pim-3 (D17C9) Rabbit mAb

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 35	Source/Isotype: Rabbit IgG	UniProt ID: #Q86V86	Entrez-Gene Id: 415116
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Pim-3 (D17C9) Rabbit mAb detects endogenous levels of total Pim-3 protein. It does not cross-react with other Pim family members.

Species predicted to react based on 100% sequence homology

Monkey

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ser275 of human Pim-3.

Background

Pim proteins (Pim-1, Pim-2 and Pim-3) are oncogene-encoded serine/threonine kinases (1). Pim-1, a serine/threonine kinase highly expressed in hematopoietic cells, plays a critical role in the transduction of mitogenic signals and is rapidly induced by a variety of growth factors and cytokines (1-4). Pim-1 cooperates with c-Myc in lymphoid cell transformation and protects cells from growth factor withdrawal and genotoxic stress-induced apoptosis (5,6). Pim-1 also enhances the transcriptional activity of c-Myb through direct phosphorylation within the c-Myb DNA binding domain as well as phosphorylation of the transcriptional coactivator p100 (7,8). Hypermutations of the Pim-1 gene are found in B-cell diffuse large cell lymphomas (9). Phosphorylation of Pim-1 at Tyr218 by Etk occurs following IL-6 stimulation and correlates with an increase in Pim-1 activity (10). Various Pim substrates have been identified; Bad is phosphorylated by both Pim-1 and Pim-2 at Ser112 and this phosphorylation reverses Bad-induced cell apoptosis (11,12). Pim-3, originally named Kid-1, was identified as a protein induced by depolarization in PC-12 cells (13). Like other family members, Pim-3 can phosphorylate Bad to inhibit Bad-mediated apoptosis (14). Aberrant expression of Pim-3 has been observed in a number of types of cancer, including liver, pancreas, colon and gastric cancer (14-17).

Background References

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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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