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PIAS2 (PIASx1/2) Antibody (N-term) Blocking peptide

Synthetic peptide
Catalog # BP1246a

Specification

PIAS2 (PIASx1/2) Antibody (N-term) Blocking peptide - Product Information

Primary Accession O75928

PIAS2 (PIASx1/2) Antibody (N-term) Blocking peptide - Additional Information

Gene ID 9063

Other Names
E3 SUMO-protein ligase PIAS2, 632-, Androgen receptor-interacting protein 3, ARIP3, DAB2-interacting protein, DIP, Msx-interacting zinc finger protein, Miz1, PIAS-NY protein, Protein inhibitor of activated STAT x, Protein inhibitor of activated STAT2, PIAS2, PIASX

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1246a was selected from the N-term region of human PIASx1/2. 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.

PIAS2 (PIASx1/2) Antibody (N-term) Blocking peptide - Protein Information

Name PIAS2

Synonyms PIASX

Function
Functions as an E3-type small ubiquitin-like modifier (SUMO) ligase, stabilizing the interaction between UBE2I and the substrate, and as a SUMO-tethering factor. Plays a crucial role as a transcriptional coregulator in various cellular pathways, including the STAT pathway, the p53 pathway and the steroid hormone signaling pathway. The effects of this transcriptional coregulation, transactivation or silencing may vary depending upon the biological context and the PIAS2 isoform studied. However, it seems to be mostly involved in gene silencing. Binds to sumoylated ELK1 and enhances its transcriptional activity by preventing recruitment of HDAC2 by ELK1, thus reversing SUMO-mediated repression of ELK1 transactivation activity. Isoform

PIAS2-beta, but not isoform PIAS2-alpha, promotes MDM2 sumoylation. Isoform PIAS2-alpha promotes PARK7 sumoylation. Isoform PIAS2-beta promotes NCOA2 sumoylation more efficiently than isoform PIAS2-alpha. Isoform PIAS2-alpha sumoylates PML at'Lys-65' and 'Lys-160'.

Cellular Location
Nucleus speckle {ECO:0000250|UniProtKB:Q8C5D8}. Nucleus, PML body. Nucleus. Note=Colocalizes at least partially with promyelocytic leukemia nuclear bodies (PML NBs) (PubMed:22406621) Colocalizes with SUMO1 in nuclear granules (By similarity) {ECO:0000250|UniProtKB:Q8C5D8, ECO:0000269|PubMed:22406621}

Tissue Location
Mainly expressed in testis. Isoform 3 is expressed predominantly in adult testis, weakly in pancreas, embryonic testis and sperm, and at very low levels in other organs

PIAS2 (PIASx1/2) Antibody (N-term) Blocking peptide - Protocols

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

- Blocking Peptides

PIAS2 (PIASx1/2) Antibody (N-term) Blocking peptide - Images

PIAS2 (PIASx1/2) Antibody (N-term) Blocking peptide - Background

PIASX functions as an E3-type small ubiquitin-like modifier (SUMO) ligase, stabilizing the interaction between UBE2I and the substrate, and as a SUMO-tethering factor. This protein plays a crucial role as a transcriptional coregulator in various cellular pathways, including the STAT pathway, the p53 pathway and the steroid hormone signaling pathway. The effects of this transcriptional coregulation, transactivation or silencing may vary depending upon the biological context and the PIAS2 isoform studied. However, it seems to be mostly involved in gene silencing. PIASX binds to sumoylated ELK1 and enhances its transcriptional activity by preventing recruitment of HDAC2 by ELK1, thus reversing SUMO-mediated repression of ELK1 transactivation activity. Isoform PIAS2-beta, but not isoform PIAS2-alpha, promotes MDM2 sumoylation. Isoform PIAS2-alpha promotes PARK7 sumoylation. Isoform PIAS2-beta promotes NCOA2 sumoylation more efficiently than isoform PIAS2-alpha.

PIAS2 (PIASx1/2) Antibody (N-term) Blocking peptide - References

Arora, T., et al., J. Biol. Chem. 278(24):21327-21330 (2003).Wu, S., et al., Oncogene 22(3):351-360 (2003).Liu, B., et al., Proc. Natl. Acad. Sci. U.S.A. 95(18):10626-10631 (1998).Wu, L., et al., Mech. Dev. 65 (1-2), 3-17 (1997).