

PIAS4 / PIASY Antibody (aa451-500)
Rabbit Polyclonal Antibody
Catalog # ALS15081**Specification**

PIAS4 / PIASY Antibody (aa451-500) - Product Information

Application	WB, IHC-P, E
Primary Accession	Q8N2W9
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	57kDa KDa
Dilution	WB~~1:1000 IHC-P~~N/A E~~N/A

PIAS4 / PIASY Antibody (aa451-500) - Additional Information**Gene ID** 51588**Other Names**

E3 SUMO-protein ligase PIAS4, 6.3.2.-, PIASy, Protein inhibitor of activated STAT protein 4, Protein inhibitor of activated STAT protein gamma, PIAS-gamma, PIAS4, PIASG

Target/Specificity

PIAS4 Antibody detects endogenous levels of total PIAS4 protein.

Reconstitution & Storage

Store at -20°C for up to one year.

Precautions

PIAS4 / PIASY Antibody (aa451-500) is for research use only and not for use in diagnostic or therapeutic procedures.

PIAS4 / PIASY Antibody (aa451-500) - Protein Information**Name** PIAS4 {ECO:0000303|PubMed:32832608, ECO:0000312|HGNC:HGNC:17002}**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 (PubMed:12511558, PubMed:12631292, PubMed:12727872, PubMed:15831457, PubMed:15976810, PubMed:22508508, PubMed:32832608). Mediates

sumoylation of ALKBH5, AXIN1, CEBPA, KLF8, GATA2, PARK7, HERC2, MYB, TCF4 and RNF168 (PubMed:12223491, PubMed:12511558, PubMed:12631292, PubMed:12727872, PubMed:12750312, PubMed:15831457, PubMed:15976810, PubMed:16617055, PubMed:22508508, PubMed:34048572). Plays a crucial role as a transcriptional coregulation in various cellular pathways, including the STAT pathway, the p53/TP53 pathway, the Wnt pathway and the steroid hormone signaling pathway (PubMed:11388671). Involved in gene silencing (PubMed:11248056). In Wnt signaling, represses LEF1 and enhances TCF4 transcriptional activities through promoting their sumoylations (PubMed:12727872, PubMed:15831457). Enhances the sumoylation of MTA1 and may participate in its paralog-selective sumoylation (PubMed:21965678). Binds to AT-rich DNA sequences, known as matrix or scaffold attachment regions (MARs/SARs) (By similarity). Catalyzes conjugation of SUMO2 to KAT5 in response to DNA damage, facilitating repair of DNA double-strand breaks (DSBs) via homologous recombination (HR) (PubMed:32832608). Mediates sumoylation of PARP1 in response to PARP1 trapping to chromatin (PubMed:35013556). Mediates sumoylation of KLF8, repressing KLF8 transcriptional activity and cell cycle progression into G(1) phase (PubMed:16617055). Sumoylates ALKBH5 downstream of MAPK8/JNK1 and MAPK9/JNK2 in response to reactive oxygen species (ROS), inhibiting ALKBH5 RNA demethylase activity (PubMed:34048572).

Cellular Location

Nucleus, PML body Note=Colocalizes with SUMO1 and TCF7L2/TCF4 and LEF1 in a subset of PML (promyelocytic leukemia) nuclear bodies.

Tissue Location

Highly expressed in testis and, at lower levels, in spleen, prostate, ovary, colon and peripheral blood leukocytes

Volume

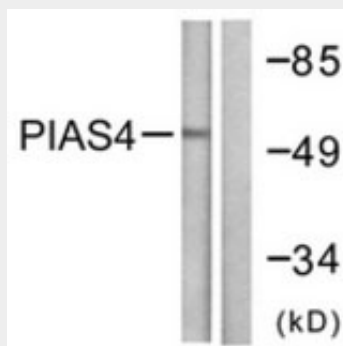
50 µl

PIAS4 / PIASY Antibody (aa451-500) - 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](#)

PIAS4 / PIASY Antibody (aa451-500) - Images

Western blot of extracts from Jurkat cells, using PIAS4 Antibody.

PIAS4 / PIASY Antibody (aa451-500) - Background

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 coregulation in various cellular pathways, including the STAT pathway, the p53/TP53 pathway, the Wnt pathway and the steroid hormone signaling pathway. Involved in gene silencing. Mediates sumoylation of CEBPA, PARK7, HERC2, MYB, TCF4 and RNF168. In Wnt signaling, represses LEF1 and enhances TCF4 transcriptional activities through promoting their sumoylations. Enhances the sumoylation of MTA1 and may participate in its paralog-selective sumoylation.

PIAS4 / PIASY Antibody (aa451-500) - References

Liu B.,et al.Proc. Natl. Acad. Sci. U.S.A. 95:10626-10631(1998).
Nelson V.,et al.Apoptosis 6:221-234(2001).
Liu B.,et al.Proc. Natl. Acad. Sci. U.S.A. 98:3203-3207(2001).
Gross M.,et al.Oncogene 20:3880-3887(2001).
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