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Anti-PIAS4 Picoband Antibody
Catalog # ABO11700

Specification

Anti-PIAS4 Picoband Antibody - Product Information

Application	**WB**
Primary Accession	Q8N2W9
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for E3 SUMO-protein ligase PIAS4(PIAS4) detection. Tested with WB in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-PIAS4 Picoband Antibody - Additional Information

Gene ID 51588

Other Names
E3 SUMO-protein ligase PIAS4, 2.3.2.27, PIASy, Protein inhibitor of activated STAT protein 4, Protein inhibitor of activated STAT protein gamma, PIAS-gamma, RING-type E3 ubiquitin transferase PIAS4, PIAS4, PIASG

Calculated MW
56504 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

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

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

Protein Name
E3 SUMO-protein ligase PIAS4

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
A synthetic peptide corresponding to a sequence at the N-terminus of human PIAS4 (130-174aa

EVRLVKLPFFNMLDELLKPTELVPQNNEKLQESPCIFALTPRQVE), different from the related mouse sequence by two amino acids.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins.

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-PIAS4 Picoband Antibody - 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:<a href="http://www.uniprot.org/citations/35013556"

target="_blank">35013556). Mediates sumoylation of KLF8, repressiing 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.

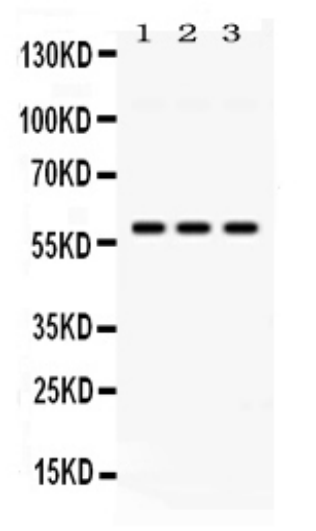
Tissue Location
Highly expressed in testis and, at lower levels, in spleen, prostate, ovary, colon and peripheral blood leukocytes

Anti-PIAS4 Picoband 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 Cytomety
- Cell Culture

Anti-PIAS4 Picoband Antibody - Images



Western blot analysis of PIAS4 expression in rat testis extract (lane 1), mouse testis extract (lane 2) and HELA whole cell lysates (lane 3). PIAS4 at 57KD was detected using rabbit anti- PIAS4 Antigen Affinity purified polyclonal antibody (Catalog # ABO11700) at 0.5 ??g/mL. The blot was developed using chemiluminescence (ECL) method .

Anti-PIAS4 Picoband Antibody - Background

E3 SUMO-protein ligase PIAS4, also known as protein inhibitor of activated STAT protein 4 (PIAS4) or protein inhibitor of activated STAT protein gamma (PIASg or PIASy), is an enzyme that in humans is encoded by the PIAS4 gene. This gene is mapped to 19p13.3. This gene 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. It also 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 gene involved in gene silencing.