

**Anti-PIAS4 Antibody**  
Catalog # ABO11525**Specification****Anti-PIAS4 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q8N2W9</a>
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 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 Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Thimerosal, 0.05mg NaN<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human PIAS4 (295-310aa

HPELCKALVKEKLRD), identical to the related mouse and rat sequences.

#### Purification

Immunogen affinity purified.

#### Cross Reactivity

No cross reactivity with other proteins

#### Storage

**At -20°C for one year. After reconstitution, 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.**

#### Sequence Similarities

Belongs to the PIAS family.

### Anti-PIAS4 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: <a href="http://www.uniprot.org/citations/12511558" target="\_blank">12511558</a>, PubMed: <a href="http://www.uniprot.org/citations/12631292" target="\_blank">12631292</a>, PubMed: <a href="http://www.uniprot.org/citations/12727872" target="\_blank">12727872</a>, PubMed: <a href="http://www.uniprot.org/citations/15831457" target="\_blank">15831457</a>, PubMed: <a href="http://www.uniprot.org/citations/15976810" target="\_blank">15976810</a>, PubMed: <a href="http://www.uniprot.org/citations/22508508" target="\_blank">22508508</a>, PubMed: <a href="http://www.uniprot.org/citations/32832608" target="\_blank">32832608</a>). Mediates sumoylation of ALKBH5, AXIN1, CEBPA, KLF8, GATA2, PARK7, HERC2, MYB, TCF4 and RNF168 (PubMed: <a href="http://www.uniprot.org/citations/12223491" target="\_blank">12223491</a>, PubMed: <a href="http://www.uniprot.org/citations/12511558" target="\_blank">12511558</a>, PubMed: <a href="http://www.uniprot.org/citations/12631292" target="\_blank">12631292</a>, PubMed: <a href="http://www.uniprot.org/citations/12727872" target="\_blank">12727872</a>, PubMed: <a href="http://www.uniprot.org/citations/12750312" target="\_blank">12750312</a>, PubMed: <a href="http://www.uniprot.org/citations/15831457" target="\_blank">15831457</a>, PubMed: <a href="http://www.uniprot.org/citations/15976810" target="\_blank">15976810</a>, PubMed: <a href="http://www.uniprot.org/citations/16617055" target="\_blank">16617055</a>, PubMed: <a href="http://www.uniprot.org/citations/22508508" target="\_blank">22508508</a>, PubMed: <a href="http://www.uniprot.org/citations/34048572" target="\_blank">34048572</a>). 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: <a href="http://www.uniprot.org/citations/11388671" target="\_blank">11388671</a>). Involved in gene silencing (PubMed: <a href="http://www.uniprot.org/citations/11248056" target="\_blank">11248056</a>). In Wnt signaling, represses LEF1 and enhances TCF4 transcriptional activities through promoting their sumoylations (PubMed: <a href="http://www.uniprot.org/citations/12727872" target="\_blank">12727872</a>, PubMed: <a href="http://www.uniprot.org/citations/15831457" target="\_blank">15831457</a>). Enhances the sumoylation of MTA1 and may participate in its paralog-selective sumoylation (PubMed: <a href="http://www.uniprot.org/citations/21965678" target="\_blank">21965678</a>). 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: <a href="http://www.uniprot.org/citations/32832608" target="\_blank">32832608</a>)

target="\_blank">32832608</a>). Mediates sumoylation of PARP1 in response to PARP1 trapping to chromatin (PubMed:<a href="http://www.uniprot.org/citations/35013556" target="\_blank">35013556</a>). Mediates sumoylation of KLF8, repressing KLF8 transcriptional activity and cell cycle progression into G(1) phase (PubMed:<a href="http://www.uniprot.org/citations/16617055" target="\_blank">16617055</a>). Sumoylates ALKBH5 downstream of MAPK8/JNK1 and MAPK9/JNK2 in response to reactive oxygen species (ROS), inhibiting ALKBH5 RNA demethylase activity (PubMed:<a href="http://www.uniprot.org/citations/34048572" target="\_blank">34048572</a>).

#### 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

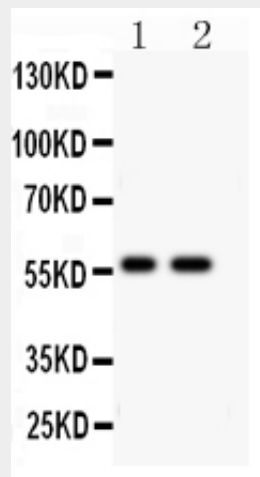
Highly expressed in testis and, at lower levels, in spleen, prostate, ovary, colon and peripheral blood leukocytes

### Anti-PIAS4 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 Cytometry](#)
- [Cell Culture](#)

### Anti-PIAS4 Antibody - Images



Anti-PIAS4 antibody, ABO11525, Western blotting All lanes: Anti-PIAS4 (ABO11525) at 0.5ug/ml Lane 1: Human Placenta Tissue Lysate at 50ug Lane 2: A431 Whole Cell Lysate at 40ug Predicted bind size: 57KD Observed bind size: 57KD

### Anti-PIAS4 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 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.