


## Product datasheet

# Anti-E3 SUMO-protein ligase PIAS4/PIASy antibody ab58416

[5 References](#) [2 Images](#)

### Overview

<b>Product name</b>	Anti-E3 SUMO-protein ligase PIAS4/PIASy antibody
<b>Description</b>	Rabbit polyclonal to E3 SUMO-protein ligase PIAS4/PIASy
<b>Host species</b>	Rabbit
<b>Specificity</b>	Detects endogenous levels of PAIAS gamma total protein.
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Mouse 
<b>Immunogen</b>	Synthetic peptide corresponding to Human E3 SUMO-protein ligase PIAS4/PIASy.
<b>Positive control</b>	Jurkat cell extract.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
<b>Storage buffer</b>	<p>pH: 7.40</p> <p>Preservative: 0.02% Sodium azide</p> <p>Constituents: PBS, 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride</p> <p>Without Mg+2 and Ca+2</p>
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	Affinity purified from rabbit antiserum by affinity chromatography using epitope specific immunogen.

<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

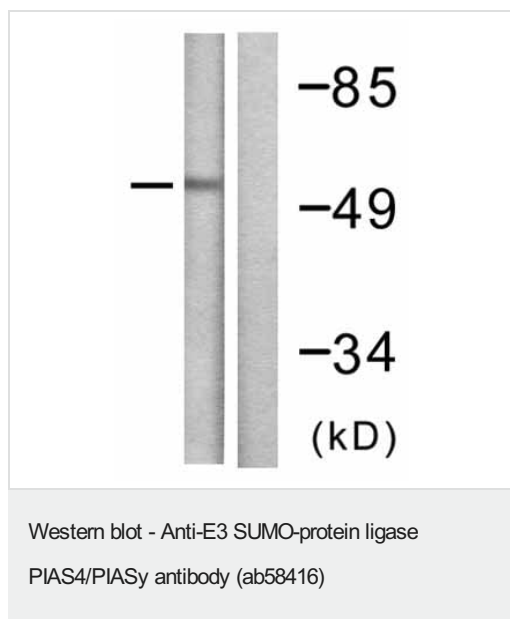
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab58416 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
<b>IHC-P</b>		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
<b>WB</b>		1/500 - 1/1000. Detects a band of approximately 57 kDa (predicted molecular weight: 57 kDa).

## Target

<b>Function</b>	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 pathway, the Wnt pathway and the steroid hormone signaling pathway. Involved in gene silencing. Promotes PARK7 sumoylation. In Wnt signaling, represses LEF1 and enhances TCF4 transcriptional activities through promoting their sumoylations.
<b>Tissue specificity</b>	Highly expressed in testis and, at lower levels, in spleen, prostate, ovary, colon and peripheral blood leukocytes.
<b>Pathway</b>	Protein modification; protein sumoylation.
<b>Sequence similarities</b>	Belongs to the PIAS family. Contains 1 PINIT domain. Contains 1 SAP domain. Contains 1 SP-RING-type zinc finger.
<b>Domain</b>	The LXXLL motif is a coregulator signature that is essential for transcriptional corepression.
<b>Post-translational modifications</b>	Sumoylated. Lys-35 is the main site of sumoylation. Sumoylation is required for TCF4 sumoylation and transcriptional activation. Represses LEF1 transcriptional activity. SUMO1 is the preferred conjugate.
<b>Cellular localization</b>	Nucleus > PML body. Colocalizes with SUMO1 and TCF7L2/TCF4 and LEF1 in a subset of PML (promyelocytic leukemia) nuclear bodies.

## Images



**All lanes :** Anti-E3 SUMO-protein ligase PIAS4/PIASy antibody (ab58416) at 1/500 dilution

**Lane 1 :** Jurkat cell extract without immunizing peptide

**Lane 2 :** Jurkat cell extract with immunizing peptide

**Predicted band size:** 57 kDa

**Observed band size:** 57 kDa

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-E3 SUMO-protein ligase PIAS4/PIASy antibody (ab58416)

IHC image of ab58416 staining in human testis formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab58416, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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