Rabbit anti-Human, Mouse PIAS1 Polyclonal Antibody | anti-PIAS1 antibody

PIAS1 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321102	**Rabbit**	**Human, Mouse**	**ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot**

PRODUCT SYNONYMS

PIAS1; Polyclonal Antibody; PIAS1 Antibody; AR interacting protein; DDXBP1; DEAD/H (Asp-Glu-Ala-Asp/His) box binding protein 1; DEAD/H box binding protein 1; DEAD/H box-binding protein 1; E3 SUMO-protein ligase PIAS1; GBP; Gu binding protein; Gu-binding protein; GU/RH-II; Pias1; PIAS1_HUMAN; Protein inhibitor of activated STAT protein 1; Protein inhibitor of activated STAT; 1; RNA helicase II binding protein; RNA helicase II-binding protein; Zinc finger; MIZ-type containing 3; ZMIZ3; anti-PIAS1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	PIAS1 antibody detects endogenous levels of PIAS1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	653
Applicable Applications for anti-PIAS1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PIAS1
Subcellular Location	Nucleus Speckle. Interaction with CSRP2 may induce a partial redistribution along the cytoskeleton.
Tissue Specificity	Expressed in numerous tissues with highest level in testis.
Predicted Cross Reactivity	**Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus**
Similarity	Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES

IF (Immunofluorescence)
AAA321102 staining MDA-MB-435 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

WB (Western Blot)
Western blot analysis on MDA-MB-435 cell lysate using PIAS1 Antibody, The lane on the left is treated with the antigen-specific peptide.

IHC (Immunohiostchemistry)
AAA321102 at 1/100 staining human brain tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

WB (Western Blot)
Western blot analysis of extracts from HepG2, using PIAS1 Antibody. Lane 1 was treated with the blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PIAS1 antibody	Description: PIAS1 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 and the steroid hormone signaling pathway. In vitro, binds A/T-rich DNA. The effects of this transcriptional coregulation, transactivation or silencing, may vary depending upon the biological context. Together with PRMT1, may repress STAT1 transcriptional activity, in the late phase of interferon gamma (IFN-gamma) signaling. Interacts with NCOA2 and AR. Interacts with NR2C1; the interaction promotes its sumoylation. Interacts with DDX21, CSRP2, AXIN1, JUN, UBE2I, SUMO1, SATB2, PLAG1, TP53 and STAT1 (dimer), following IFNA1-stimulation. Interacts with SP3 (preferentially when SUMO-modified). 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 coregulation in various cellular pathways, including the STAT pathway, the p53 pathway and the steroid hormone signaling pathway. In vitro, binds A/T-rich DNA. The effects of this transcriptional coregulation, transactivation or silencing, may vary depending upon the biological context. Together with PRMT1, may repress STAT1 transcriptional activity, in the late phase of interferon gamma (IFN-gamma) signaling. Sumoylates PML (at'Lys-65' and 'Lys-160') and PML-RAR and promotes their ubiquitin-mediated degradation. PIAS1-mediated sumoylation of PML promotes its interaction with CSNK2A1/CK2 which in turn promotes PML phosphorylation and degradation (By similarity). Enhances the sumoylation of MTA1 and may participate in its paralog-selective sumoylation. Plays a dynamic role in adipogenesis by promoting the SUMOylation and degradation of CEBPB (By similarity). Subunit Structure: Interacts with NCOA2 and AR. Interacts with NR2C1; the interaction promotes its sumoylation (By similarity). Interacts with DDX21, CSRP2, AXIN1, JUN, UBE2I, SUMO1, SATB2, PLAG1, TP53 and STAT1 (dimer), following IFNA1-stimulation. Interacts with SP3 (preferentially when SUMO-modified). Interacts with KLF8; the interaction results in SUMO ligation and repression of KLF8 transcriptional activity and of its cell cycle progression into G1 phase. Interacts with STAT1. Interacts with CHUK/IKKA; this interaction induces PIAS1 phosphorylation. Interacts with PTK2/FAK1; the interaction promotes its sumoylation. Interacts with DDX5. Interacts with PML (By similarity). Interacts with MTA1. Post-translational Modifications: Sumoylated.Dimethylated by PRMT1 at Arg-303 in the late phase of interferon gamma (IFN-gamma) signaling, leading to preferential interaction with STAT1 and thus resulting in release of STAT1 from its target gene. Similarity: The LXXLL motif is a transcriptional coregulator signature.The SP-RING-type domain is required for promoting EKLF sumoylation. Belongs to the PIAS family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	1003088814
NCBI GeneID	8554

NCBI Accession #	NP_001307616.1
NCBI GenBank Nucleotide #	NM_001320687.1
UniProt Accession #	O75925; Q147X4; Q99751; Q9UN02; B2RB67; B3KSY9; C5J4B4
Molecular Weight	Observed: 72 kDa Predicted: 72 kDa
NCBI Official Full Name	E3 SUMO-protein ligase PIAS1 isoform 1
NCBI Official Synonym Full Names	protein inhibitor of activated STAT 1
NCBI Official Symbol	PIAS1
NCBI Official Synonym Symbols	GBP; ZMIZ3; DDXBP1; GU/RH-II
NCBI Protein Information	E3 SUMO-protein ligase PIAS1
UniProt Protein Name	E3 SUMO-protein ligase PIAS1
UniProt Gene Name	**PIAS1**
UniProt Synonym Gene Names	DDXBP1; GBP

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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