PIAS3 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PIAS3, Polyclonal Antibody
Full Product Name	PIAS3 Rabbit pAb
Product Gene Name	anti-PIAS3 antibody
Product Synonym Names	ZMIZ5
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	PBS with 0.02% Sodium Azide, 50% Glycerol, pH 7.3.
Purity/Purification	Affinity Purified
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.
Molecular Weight	68kDa
OMIM	605987
3D Structure	ModBase 3D Structure for Q9Y6X2
Immunogen	Recombinant fusion protein containing a sequence corresponding to amino acids 399-628 of human PIAS3 (NP_006090.2).
Cellular Localization	Cytoplasm, Nucleus
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-PIAS3 antibody	Immunofluorescence (IF)
Application Notes for anti-PIAS3 antibody	IF: 1:50-1:200
Related Product Information for anti-PIAS3 antibody	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 and the steroid hormone signaling pathway. Involved in regulating STAT3 signaling via inhibiting STAT3 DNA-binding and suppressing cell growth. Enhances the sumoylation of MTA1 and may participate in its paralog-selective sumoylation (PubMed:21965678, PubMed:9388184). Sumoylates CCAR2 which promotes its interaction with SIRT1 (PubMed:25406032). Diminishes the sumoylation of ZFHX3 by preventing the colocalization of ZFHX3 with SUMO1 in the nucleus (PubMed:24651376).
Other Notes	Small volumes of anti-PIAS3 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PIAS3 purchase	MBS8548991 is an antibody targeting PIAS3. Also known as PIAS3 Rabbit pAb. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PIAS3. It may not necessarily be applicable to this product.

NCBI GI #	115298686

NCBI GeneID	10401
NCBI Accession #	NP_006090.2
UniProt Primary Accession #	Q9Y6X2
UniProt Related Accession #	Q9Y6X2
GenBank Nucleotide #	NP_006090.2
NCBI Official Full Name	E3 SUMO-protein ligase PIAS3
NCBI Official Synonym Full Names	protein inhibitor of activated STAT 3
NCBI Official Symbol	PIAS3
NCBI Official Synonym Symbols	ZMIZ5
UniProt Protein Name	E3 SUMO-protein ligase PIAS3
UniProt Synonym Protein Names	Protein inhibitor of activated STAT protein 3
Protein Family	E3 SUMO-protein ligase
UniProt Gene Name	PIAS3
UniProt Entry Name	PIAS3_HUMAN
NCBI Protein Information	E3 SUMO-protein ligase PIAS3
NCBI Summary for PIAS3	This gene encodes a member of the PIAS [protein inhibitor of activated STAT (signal transducer and activator of transcription)] family of transcriptional modulators. The protein functions as a SUMO (small ubiquitin-like modifier)-E3 ligase which catalyzes the covalent attachment of a SUMO protein to specific target substrates. It directly binds to several transcription factors and either blocks or enhances their activity. Alternatively spliced transcript variants of this gene have been identified, but the full-length nature of some of these variants has not been determined. [provided by RefSeq, Jul 2008]
UniProt Comments for PIAS3	PIAS3: 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 and the steroid hormone signaling pathway. Involved in regulating STAT3 signaling via inhibiting STAT3 DNA-binding and suppressing cell growth. Monomer. Binds SUMO1 and UBE2I. Interacts with BCL11A, HMGA2, IRF1, MITF and NCOA2. Interacts with STAT5; the interaction occurs on stimulation by PRL. Interacts with GFI1; the interaction relieves the inhibitory effect of PIAS3 on STAT3-mediated transcriptional activity. Interacts with AR, PLAG1 and ZFHX3. Interacts with STAT3; the interaction occurs on stimulation by IL6, CNTF or OSM and inhibits the DNA binding activity of STAT3. By dihydrotestosterone (DHT) in prostate cancer cells. Isoform 1 is expressed in most tissues except thymus and small intestine. Isoform 3 is expressed only in brain, heart, thymus, muscle, lung, testis, lactating breast and embryonic stem cells. Belongs to the PIAS family. Protein type: EC 6.3.2.-; SUMO conjugating system; Nuclear receptor co-regulator Chromosomal Location of Human Ortholog: 1q21 Cellular Component: cytoplasm; dendrite; synapse; nucleus Molecular Function: protein C-terminus binding; protein binding; enzyme binding; potassium channel regulator activity; zinc ion binding; protein N-terminus binding; SUMO ligase activity; ligase activity Biological Process: positive regulation of protein sumoylation; protein sumoylation; transcription, DNA-dependent; regulation of transcription, DNA-dependent; response to hormone stimulus; positive regulation of membrane potential
Research Articles on PIAS3	**1.** This study identified miR-18a as a suppressor of PIAS3 expression that is upregulated in malignant mesothelioma cells and whose inhibition can increase PIAS3 expression and suppress STAT3 activity.

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