

PIASx Polyclonal Antibody

Catalog No: YT3719

Reactivity: Human; Mouse; Rat; Monkey

Applications: WB;ELISA;IHC

Target: PIAS2

Fields: >>Ubiquitin mediated proteolysis;>>JAK-STAT signaling pathway

Gene Name: PIAS2

Protein Name: E3 SUMO-protein ligase PIAS2

Human Gene Id: 9063

Human Swiss Prot

075928

No:

Mouse Gene ld: 17344

Mouse Swiss Prot

Q8C5D8

No:

Rat Gene ld: 83422

Rat Swiss Prot No: Q6AZ28

Immunogen: The antiserum was produced against synthesized peptide derived from human

PIAS2. AA range:10-59

Specificity: PIASx Polyclonal Antibody detects endogenous levels of PIASx protein.

Formulation : Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Source: Polyclonal, Rabbit, IgG

Dilution: WB 1:500-2000;IHC 1:50-300; ELISA 2000-20000



Purification: The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Concentration: 1 mg/ml

Storage Stability: -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band: 68kD

Cell Pathway: Ubiquitin mediated proteolysis; Jak_STAT; Pathways in cancer; Small cell lung

cancer;

Background: This gene encodes a member of the protein inhibitor of activated STAT (PIAS)

family. PIAS proteins function as SUMO E3 ligases and play important roles in many cellular processes by mediating the sumoylation of target proteins. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. Isoforms of the encoded protein enhance the sumoylation of specific target proteins including the p53 tumor suppressor protein, c-Jun, and the androgen receptor. A pseudogene of this gene is located on the short arm of chromosome 4. The symbol MIZ1 has also been associated with ZBTB17 which is a different gene located on chromosome 1. [provided by RefSeq, Aug 2011],

Function: developmental stage:Expression of isoform 3 in adult testis is 14.2-fold stronger

than in embryonic testis.,domain:The LXXLL motif is a transcriptional coregulator signature.,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 coregulator in various cellular pathways, including the STAT pathway, the p53 pathway and the

steroid hormone signaling pathway. The effects of this transcriptional

coregulation, transactivation or silencing may vary depending upon the biological context and the PIAS2 isoform studied. However, it seems to be mostly involved in gene silencing. Binds to sumoylated ELK1 and enhances its transcriptional activity by preventing recruitment of HDAC2 by ELK1, thus reversing SUMO-

mediated repression of ELK1 transact

Subcellular

Nucleus speckle . Nucleus, PML body . Nucleus . Colocalizes at least partially with promyelocytic leukemia nuclear bodies (PML NBs) (PubMed:22406621).

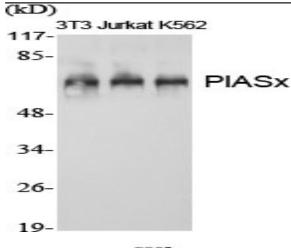
Colocalizes with SUMO1 in nuclear granules (By similarity). .

Expression: Mainly expressed in testis. Isoform 3 is expressed predominantly in adult testis,

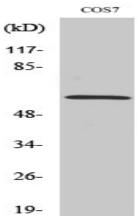
weakly in pancreas, embryonic testis and sperm, and at very low levels in other

organs.

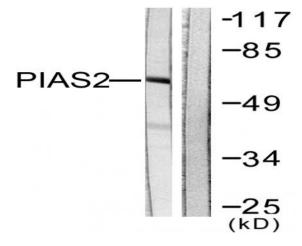
Products Images



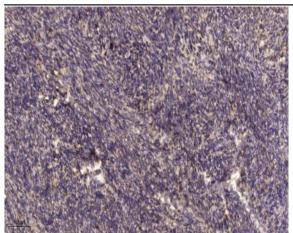
Western Blot analysis of various cells using PIASx Polyclonal Antibody diluted at 1:1000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003,Inventbiotech,MN,USA).



Western Blot analysis of COS7 cells using PIASx Polyclonal Antibody diluted at 1:1000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003,Inventbiotech,MN,USA).



Western blot analysis of lysates from COS7 cells, using PIAS2 Antibody. The lane on the right is blocked with the synthesized peptide.



Immunohistochemical analysis of paraffin-embedded human uterus. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).