PIASx Rabbit pAb

CatalogNo: YT3719

Key Features

Host Species	Reactivity	Applications
• Rabbit	• Human,Mouse,Rat,Monkey	• WB,ELISA,IHC

MW	Isotype
• 68kD (Observed)	• IgG

Recommended Dilution Ratios

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

Storage

Storage*	-15°C to -25°C/1 year(Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality	Polyclonal

Immunogen Information

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.

Target Information

Gene name PIAS2

Protein Name E3 SUMO-protein ligase PIAS2

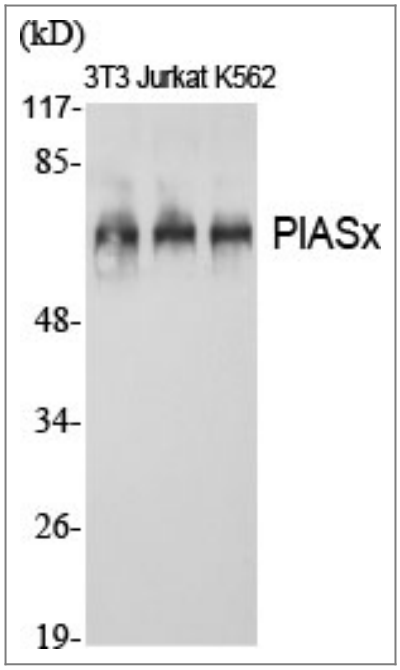
Organism	Gene ID	UniProt ID
Human	9063;	O75928;
Mouse	17344;	Q8C5D8;
Rat	83422;	Q6AZ28;

Cellular Localization 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). .

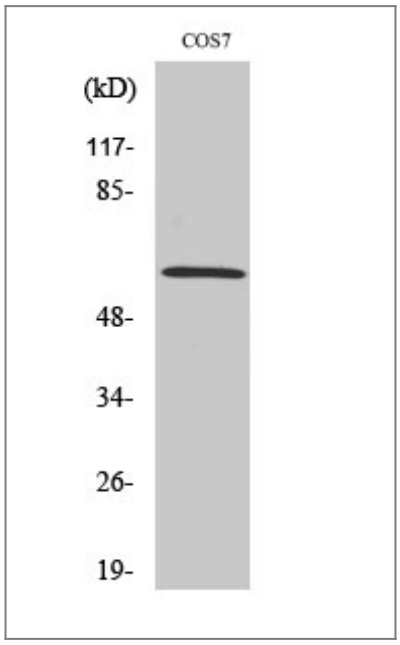
Tissue specificity Mainly expressed in testis. Isoform 3 is expressed predominantly in adult testis, weakly in pancreas, embryonic testis and sperm, and at very low levels in other organs.

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 transactivation activity. Isoform PIAS2-beta, but not isoform PIAS2-alpha, promotes MDM2 sumoylation. Isoform PIAS2-alpha promotes PARK7 sumoylation. Isoform PIAS2-beta promotes NCOA2 sumoylation more efficiently than isoform PIAS2-alpha.,induction:Up-regulated transiently during myeloid differentiation in various cells lines, such as HL-60, U-937, K-562, induced by either phorbol ester (TPA) or retinoic acid.,pathway:Protein modification; protein sumoylation.,PTM:Sumoylated.,similarity:Belongs to the PIAS family.,similarity:Contains 1 SAP domain.,similarity:Contains 1 SP-RING-type zinc finger.,subcellular location:Colocalizes at least partially with promyelocytic leukemia nuclear bodies (PML NBs).,subunit:Binds SUMO1 and UBE2I. Interacts with JUN, MDM2, PARK7, TP53 and TP73 isoform alpha, but not TP73 isoform beta. Interacts with STAT4 following IL12 and IFN-alpha stimulation of T-cells. Interacts also with GTF2I, GTF2IRD1, DAB2 and MSX2, as well as with several steroid receptors, including ESR1, ESR2, NR3C1, PGR, AR, and with NCOA2 (By similarity). Sumoylation of a target protein seems to enhance the interaction. Binds to sumoylated ELK1. Binds DNA, such as CDKN1A promoter, in a sequence-specific manner. Interacts with PLAG1. Interacts with KLF8; the interaction results in SUMO ligation and repression of KLF8 transcriptional activity and of its cell cycle progression into G(1) phase.,tissue specificity:Mainly testis. Isoform 3 is expressed predominantly in adult testis, weakly in pancreas, embryonic testis and sperm, and at very low levels in other organs.,

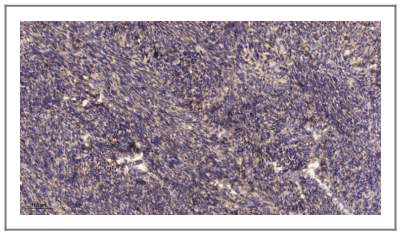
Validation Data



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).



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).

Contact information

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