

PIASx (S-15): sc-30879

BACKGROUND

The IL-6-type family of cytokines, which includes IL-6 and a number of similar cytokines and growth factors, plays a significant role in regulating gene activation, proliferation and differentiation. Transcription factors of the Stat (signal transducer and activator of transcription) family are involved in IL-6 family-mediated signal transduction pathways and, upon activation, undergo phosphorylation, dimerization, and translocation to the nucleus. The duration and intensity of a cell's response to cytokines can be adjusted by the effect of several regulatory mechanisms. One example involves the protein inhibitor of activated Stat family (PIAS family) of proteins, which act as negative regulators of Stats in cytokine signaling. PIAS proteins are able to coactivate steroid receptor-dependent transcription as well. PIASx transcript is alternatively spliced to yield two protein isoforms, PIASx- α and PIASx- β , which differ in their C-terminal regions. Similar to other members of the PIAS family, the predicted PIASx proteins contain a putative zinc-binding motif and a highly acidic region.

CHROMOSOMAL LOCATION

Genetic locus: PIAS2 (human) mapping to 18q21.1; Pias2 (mouse) mapping to 18 E3.

SOURCE

PIASx (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of PIASx of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-30879 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PIASx (S-15) is recommended for detection of PIASx of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PIASx (S-15) is also recommended for detection of PIASx in additional species, including equine and canine.

Suitable for use as control antibody for PIASx siRNA (h): sc-40849, PIASx siRNA (m): sc-40850, PIASx shRNA Plasmid (h): sc-40849-SH, PIASx shRNA Plasmid (m): sc-40850-SH, PIASx shRNA (h) Lentiviral Particles: sc-40849-V and PIASx shRNA (m) Lentiviral Particles: sc-40850-V.

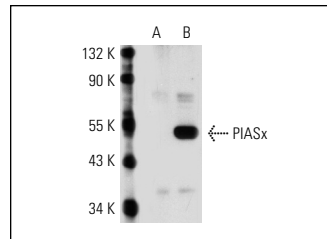
Molecular Weight of PIASx: 62 kDa.

Positive Controls: Daudi + IFN α cell lysate: sc-2266 or PIASx (m): 293 Lysate: sc-111287.

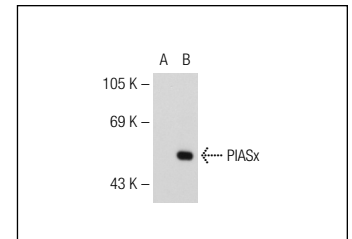
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PIASx (S-15): sc-30879. Western blot analysis of PIASx expression in non-transfected: sc-110760 (A) and mouse PIASx transfected: sc-111287 (B) 293 whole cell lysates.



PIASx (S-15): sc-30879. Western blot analysis of PIASx expression in non-transfected: sc-117752 (A) and mouse PIASx transfected: sc-110290 (B) 293 whole cell lysates.

SELECT PRODUCT CITATIONS

- La Salle, S., et al. 2008. Developmental control of sumoylation pathway proteins in mouse male germ cells. *Dev. Biol.* 321: 227-237.
- Karpuzoglu, E., et al. 2011. Serine protease inhibitor, 4-(2-aminoethyl)-benzene sulfonyl fluoride, impairs IL-12-induced activation of pSTAT4 β , NF κ B, and select pro-inflammatory mediators from estrogen-treated mice. *Immunobiology* 216: 1264-1273.
- Sun, L., et al. 2013. PIASy mediates hypoxia-induced SIRT1 transcriptional repression and epithelial-to-mesenchymal transition in ovarian cancer cells. *J. Cell Sci.* 126: 3939-3947.

STORAGE

Store at 4° C, **DO NOT FREEZE** Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **PIASx (D-12): sc-166494**, our highly recommended monoclonal alternative to PIASx (S-15).