

PIASy (h): 293T Lysate: sc-114469

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 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 signal transducer and activator of transcription (STAT) family (PIAS family) of proteins, which act as negative regulators of STATs in cytokine signaling. PIAS proteins are able to co-activate steroid receptor-dependent transcription as well. Human PIASy is a 510 amino acid transcriptional corepressor of the androgen receptor (AR). In addition, PIASy may regulate p53-mediated events and may direct p53 into a transactivation-independent mode of apoptosis.

REFERENCES

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3. Heinrich, P.C., et al. 1998. Interleukin-6-type cytokine signalling through the gp130/Jak/STAT pathway. *Biochem. J.* 334: 297-314.
4. Liu, B., et al. 1998. Inhibition of Stat1-mediated gene activation by PIAS 1. *Proc. Natl. Acad. Sci. USA* 95: 10626-10631.
5. Starr, R., et al. 1999. Negative regulation of the JAK/STAT pathway. *Bioessays* 21: 47-52.
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8. Nelson, V., et al. 2001. A putative protein inhibitor of activated STAT (PIASy) interacts with p53 and inhibits p53-mediated transactivation but not apoptosis. *Apoptosis* 6: 221-234.
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CHROMOSOMAL LOCATION

Genetic locus: PIAS4 (human) mapping to 19p13.3.

PRODUCT

PIASy (h): 293T Lysate represents a lysate of human PIASy transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

PIASy (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PIASy antibodies. Recommended use: 10-20 µl per lane.

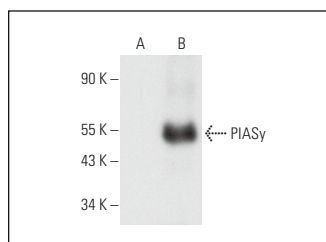
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PIASy (C-11): sc-166706 is recommended as a positive control antibody for Western Blot analysis of enhanced human PIASy expression in PIASy transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

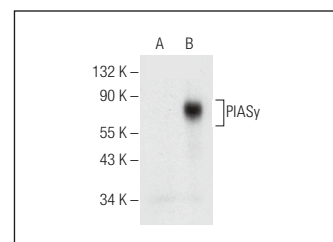
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



PIASy (C-11): sc-166706. Western blot analysis of PIASy expression in non-transfected: sc-117752 (A) and human PIASy transfected: sc-114469 (B) 293T whole cell lysates.



PIASy (H-9): sc-376315. Western blot analysis of PIASy expression in non-transfected: sc-117752 (A) and human PIASy transfected: sc-114469 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.