



Qty: 100 µg/200 µL

Mouse anti-PIAS1

Catalog No. 39-6600

Lot No.

Mouse anti-PIAS1

FORM

This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: ZP008

ISOTYPE: Mouse IgG₁-kappa

IMMUNOGEN

Recombinant protein derived from the internal region of the human PIAS1 protein, which shares 98% homology with mouse and rat

SPECIFICITY

This antibody is specific for PIAS1 (protein inhibitor of activated STAT protein 1, DDXBP1, DEAD/H box binding protein 1, Gu binding protein, GBP, RNA helicase II binding protein). On Western blots, it identifies the target band at ~70 kDa.

REACTIVITY

Reactivity has been confirmed with human MCF-7 cell lysates and mouse embryonic fibroblasts by Western blotting. Based on amino acid sequence homology, reactivity with rat may be observed.

Sample	ELISA	Western Blotting
Human	ND	+++
Mouse	ND	++
Rat	ND	ND
Immunogen	+++	+++

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE

Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

ELISA: 0.1 – 1.0 µg/mL
Western Blotting: 5 – 10 µg/mL

STORAGE

Store at 2-8°C for up to one month. Store at -20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

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PI396600

(Rev 10/08) DCC-08-1089

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BACKGROUND

Protein inhibitor of STAT protein 1 (PIAS1, DDXBP1, DEAD/H box-binding protein 1, GBP, Gu binding protein, RNA helicase II binding protein) is a member of the mammalian PIAS family¹. PIAS1 contains a putative zinc-binding motif and a highly acidic region. PIAS1 inhibits STAT-1 mediated gene activation and DNA binding activity. PIAS1 also binds to Gu protein/RNA helicase II/DEAD box polypeptide 21. In the testis, PIAS interacts with androgen receptor and functions as a nuclear receptor transcription coregulator, and may play a role in androgen receptor initiation and maintenance of spermatogenesis. Evidence suggests that PIAS1 is also involved in other signaling pathways, including NFκB² and interferon³. PIAS1 has also been shown to be a regulator of sumoylation of p53⁴, and has demonstrated JNK-dependent proapoptotic activity⁵.

REFERENCES

1. Liu B, et al. *PNAS* 95:10626-10631, 1998.
2. Liu B, et al. *Mol Cell Biol* 25(3):1113-1123, 2005.
3. Liu B, et al. *Nat Immunol* 5(9):891-898, 2004.
4. Kayho T, et al. *Molec Cell* 8:713-718, 2001.
5. Liu B, Shuai K. *J Biol Chem* 276(39):36624-36631, 2001.

RELATED PRODUCTS

Product	Conjugate	Cat. No.
Protein A	Sepharose [®] 4B	10-1041
rec-Protein G	Sepharose [®] 4B	10-1241

Conjugate	ZyMAX™ Goat x Rabbit IgG (H+L)	ZyMAX™ Goat x Mouse IgG (H+L)
Purified	81-6100	81-6500
FITC	81-6111	81-6511
TRITC	81-6114	81-6514
Cy™ ³	81-6115	81-6515
Cy™ ⁵	81-6116	81-6516
HRP	81-6120	81-6520
AP	81-6122	81-6522
Biotin	81-6140	81-6540

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