



## PIASy Polyclonal Antibody

Cat #: ABP55541

Size: 30µl /100µl /200µl

### Product Information

|   |  |   |   |
|---|--|---|---|
|   | <b>Product Name:</b> PIASy Polyclonal Antibody                       |   |   |
|   | <b>Applications:</b> WB, IHC-P, ELISA                                |   | <b>Isotype:</b> Rabbit IgG                |
|   | <b>Reactivity:</b> Human, Mouse                                      |   |   |
| <b>REF</b>  | <b>Catalog Number:</b> ABP55541                                      | <b>LOT</b>  | <b>Lot Number:</b> Refer to product label |
|   | <b>Formulation:</b> Liquid   |   | <b>Concentration:</b> 1 mg/ml             |
|  | <b>Storage:</b> Store at -20°C. Avoid repeated freeze / thaw cycles. |  | <b>Note:</b> Contain sodium azide.        |

**Background:** The protein inhibitor of activated Stat (PIAS) proteins, which include PIAS1, PIAS3, PIASx, and PIASy, were originally characterized based on their interaction with the Stat family of transcription factors. PIAS1, PIAS3, and PIASx interact with and repress Stat1, Stat3, and Stat4, respectively. Deletion of PIAS1 leads to inhibition of interferon-inducible genes and increased protection against infection. The PIAS family contains a conserved RING domain that has been linked to a function as a small ubiquitin-related modifier (SUMO) ligase, coupling the SUMO conjugating enzyme Ubc9 with its substrate proteins. Numerous studies have now shown that PIAS family members can regulate the activity of transcription factors through distinct mechanisms, including NF-κB, c-Jun, p53, Oct-4, and Smads. The activity of PIAS1 is regulated by both phosphorylation and arginine methylation. Inflammatory stimuli can induce IKK-mediated phosphorylation of PIAS1 at Ser90, which is required for its activity. In addition, PRMT1 induces arginine methylation of PIAS1 at Arg303 following interferon treatment and is associated with its repressive activity on Stat1. PIAS4, also known as PIASy, is a specific SUMO-E3 ligase for Ets-1 and represses Ets-1 dependent transcription. PIAS4 also alters the nuclear localization, reduces the transcriptional activity of C/EBPδ, and enhances cell proliferation and migration.

**Application Notes:** Optimal working dilutions should be determined experimentally by the investigator. Suggested starting dilutions are as follows: WB (1:500-1:2000), IHC-P (1:100-1:300), ELISA (1:20000). Not yet tested in other applications.

**Storage Buffer:** PBS containing 50% Glycerol, 0.5% BSA and 0.02% Sodium Azide.

**Storage Instructions:** Stable for one year at -20°C from date of shipment. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Aliquot to avoid repeated freezing and thawing.

**Note:** The product listed herein is for research use only and is not intended for use in human or clinical diagnosis. Suggested applications of our products are not recommendations to use our products in violation of any patent or as a license. We cannot be responsible for patent infringements or other violations that may occur with the use of this product.

