

Polyclonal Anti-PIAS4 Antibody

Catalog Number: PA2215

Description

Gene Name	protein inhibitor of activated STAT, 4
Recommended Protein Name	E3 SUMO-protein ligase PIAS4
Lot No.	0221312c021588
Size	100µg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	Reacts with: human Predicted to work with: mouse, rat
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human PIAS4(295-310aa HPELCKALVKEKLRD), identical to the related mouse and rat sequences.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .

Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Hu	Ms, Rat	-

Tested Species: In-house tested species with positive results.

Predicted Species: Species predicted to be fit for the product based on sequence similarities.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage: At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time.

Avoid repeated freezing and thawing.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB.

Background

E3 SUMO-protein ligase PIAS4, also known as protein inhibitor of activated STAT protein 4 (PIAS4) or protein inhibitor of activated STAT protein gamma (PIASg or PIASy) is an enzyme that in humans is encoded by the PIRAS4 gene. This gene is mapped to 19p13.3. This gene plays a crucial role as a transcriptional coregulation in various cellular pathways, including the STAT pathway, the p53/TP53 pathway, the Wnt pathway and the steroid hormone signaling pathway. It 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. This gene involved in gene silencing.

Reference

1. Bischof, O., Schwamborn, K., Martin, N., Werner, A., Sustmann, C., Grosschedl, R., Dejean, A. The E3 SUMO ligase PIASy is a regulator of cellular senescence and apoptosis. *Molec. Cell* 22: 783-794, 2006.
2. Galanty, Y., Belotserkovskaya, R., Coates, J., Polo, S., Miller, K. M., Jackson, S. P. Mammalian SUMO E3-ligases PIAS1 and PIAS4 promote responses to DNA double-strand breaks. *Nature* 462: 935-939, 2009.
3. Sachdev, S., Bruhn, L., Sieber, H., Pichler, A., Melchior, F., Grosschedl, R. PIASy, a nuclear matrix-associated SUMO E3 ligase, represses LEF1 activity by sequestration into nuclear bodies. *Genes Dev.* 15: 3088-3103, 2001.