

Polyclonal Anti-STAT1 Antibody

Catalog Number: PA1075

Description

Gene Name	signal transducer and activator of transcription 1, 91kDa
Recommended Protein Name	Signal transducer and activator of transcription 1
Lot No.	0101112107592
Size	100µg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	Reacts with: human, mouse, rat
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human STAT1(364-378aa FDKDVNERNTVKGFR), different from the related mouse sequence by one amino acid.
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

The crystal structure of the DNA complex of a 67-kD core fragment of the STAT1 homodimer was determined, lacking only the N-domain and the C-terminal transcriptional activation domain, at 2.9-angstrom resolution. Phosphorylation of Signal Transducer and Activator of transcription 1(STAT 1) was also decreased in rheumatoid arthritis lymphocytes. The transcription factor signal transducer and activator of transcription-1 (STAT1) plays a key role in immunity against mycobacterial and viral infections. Activation of the signal transducers and activators of transcription (STAT) pathway is important in fibroblast growth factor (FGF) modulation of chondrocyte proliferation and endochondral bone formation during embryogenesis.

Reference

1. Chapgier, A.; Boisson-Dupuis, S.; Jouanguy, E.; Vogt, G.; Feinberg, J.; Prochnicka-Chalufour, A.; Casrouge, A.; Yang, K.; Soudais, C.; Fieschi, C.; Santos, O. F.; Bustamante, J.; and 10 others : Novel STAT1 alleles in otherwise healthy patients with mycobacterial disease. *PLoS Genet.* 2: e131, 2006. Note: Electronic Article
2. Ihle, J. N. : STATs: signal transducers and activators of transcription. *Cell* 84: 331-334, 1996.
3. Xiao, L.; Naganawa, T.; Obugunde, E.; Gronowicz, G.; Ornitz, D. M.; Coffin, J. D.; Hurley, M. M. : Stat1 controls postnatal bone formation by regulating fibroblast growth factor signaling in osteoblasts. *J. Biol. Chem.* 279: 27743-27752, 2004.