



# **Product Information Sheet**

## Polyclonal Anti-Signal Transducer Activator of transcription 1 (P91), STAT1 (P91)



| Catalogue No. PA1075           | Immunogen                                                                             |
|--------------------------------|---------------------------------------------------------------------------------------|
|                                | A peptide mapping at the C-terminus of human stat1(P91), identical to                 |
| Lot No. 03A01                  | the related mouse and rat sequence.                                                   |
|                                | Purity                                                                                |
| lg type: rabbit lgG            | Immunogen affinity purified.                                                          |
|                                | Application                                                                           |
| Size: 100µg/vial               | Western blot                                                                          |
|                                | At 1-2 $\mu$ g/ml with the appropriate system to detect stat1(P91) in cells           |
| Specificity                    | and tissues.                                                                          |
| Human, mouse, rat.             | Immunohistochemistry(P)                                                               |
| No cross reactivity with other | At 1-2µg/ml to detect stat1(P91)in formalin fixed and paraffin                        |
| proteins.                      | embedded tissues. Boiling the sections is required.                                   |
|                                | Other applications have not been tested.                                              |
| Recommended application        | Optimal dilutions should be determined by end user.                                   |
| Western blot                   | Contents                                                                              |
| Immunohistochemistry(P)        | Each vial contains 50% glycerol, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> . |
|                                | Reconstitution                                                                        |
|                                | 1.2% sodium acetate or neutral PBS. If 0.5ml of PBS is used, the                      |
| To reorder contact us at:      | antibody concentration will be 100µg/ml.                                              |
| Antagene, Inc.                 | Storage                                                                               |
| Toll Free: 1(866)964-2589      | At -20°C for one year. After reconstitution, at 4°C for one month. It can             |
| email: Info@antageneinc.com    | also be aliquotted and stored frozen at -20°C for longer time.                        |
|                                |                                                                                       |

### FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC AND CLINICAL USE.

#### BACKGROUND

Chen et al. (1998) determined the crystal structure of the DNA complex of a 67-kD core fragment of the STAT1 homodimer, 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.