

## Immunotag™ Stat4 Polyclonal Antibody

| Antibody Specification |                                                                                                                                                                    |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Catalog No.            | ITT4446                                                                                                                                                            |
| Product Description    | Immunotag™ Stat4 Polyclonal Antibody                                                                                                                               |
| Size                   | 50 µg, 100 µg                                                                                                                                                      |
| Conjugation            | HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647                                      |
| IMPORTANT NOTE         | This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return. |
| Target Protein         | STAT4                                                                                                                                                              |
| Clonality              | Polyclonal                                                                                                                                                         |
| Storage/Stability      | -20°C/1 year                                                                                                                                                       |
| Application            | WB,IHC-p,ELISA                                                                                                                                                     |
| Recommended Dilution   | Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunoprecipitation: 2-5 ug/mg lysate. ELISA: 1/5000. Not yet tested in other applications.     |
| Concentration          | 1 mg/ml                                                                                                                                                            |
| Reactive Species       | Human,Mouse,Rat                                                                                                                                                    |
| Host Species           | Rabbit                                                                                                                                                             |
| Immunogen              | Synthesized peptide derived from Stat4 . at AA range: 630-710                                                                                                      |
| Specificity            | Stat4 Polyclonal Antibody detects endogenous levels of Stat4 protein.                                                                                              |
| Purification           | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen                                               |
| Form                   | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                            |
| Gene Name              | STAT4                                                                                                                                                              |
| Accession No.          | Q14765 P42228                                                                                                                                                      |
| Alternate Names        | STAT4; Signal transducer and activator of transcription 4                                                                                                          |

## Antibody Specification

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| Description                 | <p>signal transducer and activator of transcription 4(STAT4) Homo sapiens The protein encoded by this gene is a member of the STAT family of transcription factors. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate to the cell nucleus where they act as transcription activators. This protein is essential for mediating responses to IL12 in lymphocytes, and regulating the differentiation of T helper cells. Mutations in this gene may be associated with systemic lupus erythematosus and rheumatoid arthritis. Alternate splicing results in multiple transcript variants that encode the same protein. [provided by RefSeq, Aug 2011],</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Cell Pathway/<br>Category   | Jak_STAT,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Protein<br>Expression       | Brain,Kidney,Pancreas,Spleen,Testis,Uterus,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Subcellular<br>Localization | nucleus,nucleoplasm,cytoplasm,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Protein Function            | <p>disease:Genetic variations in STAT4 are associated with susceptibility to rheumatoid arthritis (RA) [MIM:180300]. Rheumatoid arthritis is a complex, multifactorial disorder. It is one of the most common autoimmune diseases and it is characterized by inflammation of synovial tissue and joint destruction.,disease:Genetic variations in STAT4 are associated with susceptibility to systemic lupus erythematosus type 11 (SLEB11) [MIM:612253]. Systemic lupus erythematosus (SLE) is a chronic autoimmune disease with a complex genetic basis. SLE is an inflammatory, and often febrile multisystemic disorder of connective tissue characterized principally by involvement of the skin, joints, kidneys, and serosal membranes. It is thought to represent a failure of the regulatory mechanisms of the autoimmune system.,function:Carries out a dual function: signal transduction and activation of transcription. Involved in IL12 signaling.,PTM:Tyrosine phosphorylated. Serine phosphorylation is also required for maximal transcriptional activity.,similarity:Belongs to the transcription factor STAT family.,similarity:Contains 1 SH2 domain.,subcellular location:Translocated into the nucleus in response to phosphorylation.,subunit:Forms a homodimer or a heterodimer with a related family member (By similarity). The SH2 domain interacts, in vitro, with IL12RB2 via a short cytoplasmic domain.,</p> |
| Usage                       | For Research Use Only! Not for diagnostic or therapeutic procedures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |