

# Anti-STAT2 Antibody

Catalog # ABO10827

#### Specification

## **Anti-STAT2 Antibody - Product Information**

ApplicationWBPrimary AccessionP52630HostRabbitReactivityHumanClonalityPolyclonalFormatLyophilizedDescriptionRabbit IgG polyclonal antibody for Signal transducer and activator of transcription 2(STAT2)detection. Tested with WB in Human.

**Reconstitution** Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

### Anti-STAT2 Antibody - Additional Information

Gene ID 6773

**Other Names** Signal transducer and activator of transcription 2, p113, STAT2

Calculated MW 97916 MW KDa

**Application Details** Western blot, 0.1-0.5 μg/ml, Human<br>

**Subcellular Localization** Cytoplasm. Nucleus. Translocated into the nucleus upon activation by IFN-alpha/beta.

**Protein Name** Signal transducer and activator of transcription 2

**Contents** Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

Immunogen A synthetic peptide corresponding to a sequence at the C-terminus of human STAT2(796-814aa RHLNTEPMEIFRNCVKIEE).

**Purification** Immunogen affinity purified.

**Cross Reactivity** No cross reactivity with other proteins



Storage

At -20°C for one year. After r°Constitution, 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.

Sequence Similarities Belongs to the transcription factor STAT family.

### Anti-STAT2 Antibody - Protein Information

#### Name STAT2

Function

Signal transducer and activator of transcription that mediates signaling by type I interferons (IFN-alpha and IFN-beta). Following type I IFN binding to cell surface receptors, Jak kinases (TYK2 and JAK1) are activated, leading to tyrosine phosphorylation of STAT1 and STAT2. The phosphorylated STATs dimerize, associate with IRF9/ISGF3G to form a complex termed ISGF3 transcription factor, that enters the nucleus. ISGF3 binds to the IFN stimulated response element (ISRE) to activate the transcription of interferon stimulated genes, which drive the cell in an antiviral state (PubMed:<a href="http://www.uniprot.org/citations/23391734">http://www.uniprot.org/citations/23391734</a>"

target="\_blank">23391734</a>, PubMed:<a href="http://www.uniprot.org/citations/9020188" target="\_blank">9020188</a>). In addition, has also a negative feedback regulatory role in the type I interferon signaling by recruiting USP18 to the type I IFN receptor subunit IFNAR2 thereby mitigating the response to type I IFNs (PubMed:<a

href="http://www.uniprot.org/citations/28165510" target="\_blank">28165510</a>). Acts as a regulator of mitochondrial fission by modulating the phosphorylation of DNM1L at 'Ser-616' and 'Ser-637' which activate and inactivate the GTPase activity of DNM1L respectively (PubMed:<a href="http://www.uniprot.org/citations/23391734" target="\_blank">23391734</a>, PubMed:<a href="http://www.uniprot.org/citations/26122121" target="\_blank">26122121</a>, PubMed:<a href="http://www.uniprot.org/citations/26122121" target="\_blank">26122121</a>, PubMed:<a href="http://www.uniprot.org/citations/26122121" target="\_blank">201088</a>).

**Cellular Location** 

Cytoplasm. Nucleus Note=Translocated into the nucleus upon activation by IFN-alpha/beta

### Anti-STAT2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-STAT2 Antibody - Images





Anti-STAT2 antibody, ABO10827, Western blottingLane 1: U87 Cell LysateLane 2: U87 Cell LysateLane 3: U87 Cell LysateLane 4: U87 Cell Lysate

# Anti-STAT2 Antibody - Background

Signal transducer and activator of transcription 2(STAT2) is a protein that in humans is encoded by the STAT2 gene. The protein encoded by this gene is a member of the STAT protein family. The International Radiation Hybrid Mapping Consortium mapped the STAT2 gene to chromosome 12. STAT2 is a transcription factor critical to the signal transduction pathway of type I interferons. ISGF3(STAT2) assembly involves p48 functioning as an adaptor protein to recruit Stat1 and Stat2 to an IFN-alpha-stimulated response element, Stat2 contributes a potent transactivation domain but is unable to directly contact DNA, while Stat1 stabilizes the heteromeric complex by contacting DNA directly.