

### STAT2 Antibody (C-Terminus, clone 19G8.H2.H6) Mouse Monoclonal Antibody Catalog # ALS15581

## Specification

## STAT2 Antibody (C-Terminus, clone 19G8.H2.H6) - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW IHC, WB <u>P52630</u> Human, Mouse Mouse Monoclonal 98kDa KDa

#### STAT2 Antibody (C-Terminus, clone 19G8.H2.H6) - Additional Information

Gene ID 6773

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

Target/Specificity

This Protein-A purified antibody is directed against human STAT2 protein. A BLAST analysis was used to suggest cross-reactivity with STAT2 protein from human, rat (73%) and mouse (76%), sources based on homology with the immunizing sequence. Reactivi ...

**Reconstitution & Storage** 

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

STAT2 Antibody (C-Terminus, clone 19G8.H2.H6) is for research use only and not for use in diagnostic or therapeutic procedures.

## STAT2 Antibody (C-Terminus, clone 19G8.H2.H6) - 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" 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">20102188</a>).

#### Cellular Location

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

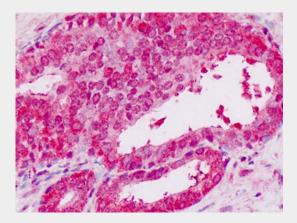
Volume 200 μl

## STAT2 Antibody (C-Terminus, clone 19G8.H2.H6) - Protocols

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

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

## STAT2 Antibody (C-Terminus, clone 19G8.H2.H6) - Images



Anti-STAT2 antibody IHC staining of human prostate.





Anti-Stat2 Monoclonal Antibody - Western Blot.

# STAT2 Antibody (C-Terminus, clone 19G8.H2.H6) - Background

Signal transducer and activator of transcription that mediates signaling by type I IFNs (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.

# STAT2 Antibody (C-Terminus, clone 19G8.H2.H6) - References

Fu X.-Y.,et al.Proc. Natl. Acad. Sci. U.S.A. 89:7840-7843(1992). Yan R.,et al.Nucleic Acids Res. 23:459-463(1995). Ota T.,et al.Nat. Genet. 36:40-45(2004). Scherer S.E.,et al.Nature 440:346-351(2006). Fu X.Y.,et al.Cell 70:323-335(1992).