
Product Name: KD-Validated STAT3 Mouse Monoclonal Antibody**Catalog #: KVA00706**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Mouse mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:2,500-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 88.1kDa

Antigen Information

Gene Name	STAT3 STAT3; Signal Transducer And Activator Of Transcription 3; APRF; Acute-Phase Response
Alternative Names	Factor; Signal Transducer And Activator Of Transcription 3 (Acute-Phase Response Factor); DNA-Binding Protein APRF; ADMIO1; ADMIO; HIES
Gene ID	6774.0
SwissProt ID	P40763
Immunogen	Recombinant protein of human stat3

Background

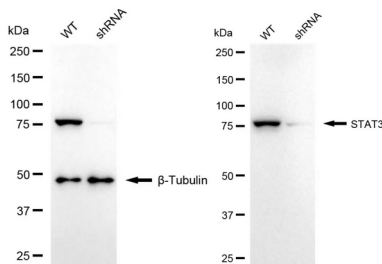
The protein encoded by this gene is a member of the STAT protein family. In response to cytokines and growth factors, STAT family members are phosphorylated by the receptor associated kinases, and then form homo- or heterodimers that translocate

to the cell nucleus where they act as transcription activators. This protein is activated through phosphorylation in response to various cytokines and growth factors including IFNs, EGF, IL5, IL6, HGF, LIF and BMP2. This protein mediates the expression of a variety of genes in response to cell stimuli, and thus plays a key role in many cellular processes such as cell growth and apoptosis. The small GTPase Rac1 has been shown to bind and regulate the activity of this protein. PIAS3 protein is a specific inhibitor of this protein. This gene also plays a role in regulating host response to viral and bacterial infections. Mutations in this gene are associated with infantile-onset multisystem autoimmune disease and hyper-immunoglobulin E syndrome. [provided by RefSeq, Aug 2020]

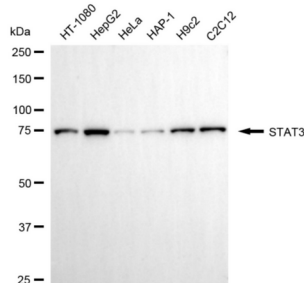
Research Area

Signal Transduction, Epigenetics and Nuclear Signaling, Stem Cells, Microbiology, Cancer, Cardiovascular, Developmental Biology

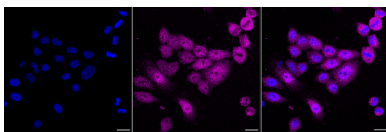
Image Data



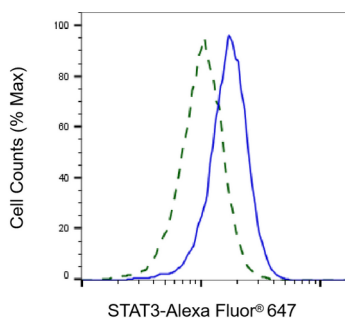
Western blotting analysis using STAT3 antibody (KVA00706). STAT3 expression in wild type (WT) and STAT3 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with STAT3 antibody (KVA00706, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



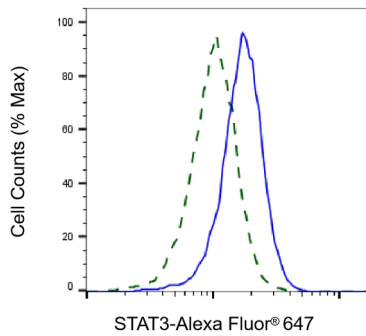
Western blotting analysis using STAT3 antibody (KVA00706). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with STAT3 antibody (KVA00706, 1:5,000) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively. STAT3, signal transducer and activator of transcription 3.



Immunocytochemical staining of HepG2 cells with STAT3 antibody (KVA00706, 1:1,000). Nuclei were stained blue with DAPI; STAT3 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser intensity and Smart Gain: Medium. Scale bar, 20 µm.



Validation of STAT3 knockdown using flow cytometry. Wild-type (WT, Blue) and knockdown (KD, Green) HeLa cells were stained with STAT3 antibody (KVA00706, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of STAT3 expression in HepG2 cells using STAT3 antibody (KVA00706, 1:2,000). Green, isotype control; red, STAT3.