

Product datasheet for **CF500177**

STAT3 Mouse Monoclonal Antibody [Clone ID: OTI21E7]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI21E7
Applications:	IHC, WB
Recommended Dilution:	WB: 1:500, IHC 1:50
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Recombinant protein expressed in E.coli corresponding to amino acids 154-175 of human stat3
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	88.08 kDa
Gene Name:	signal transducer and activator of transcription 3
Database Link:	NP_998827 Entrez Gene 20848 Mouse Entrez Gene 25125 Rat Entrez Gene 6774 Human P40763



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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. Three alternatively spliced transcript variants encoding distinct isoforms have been described.

Synonyms:

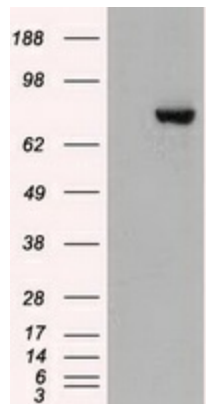
ADMIO; APRF; HIES

Protein Families:

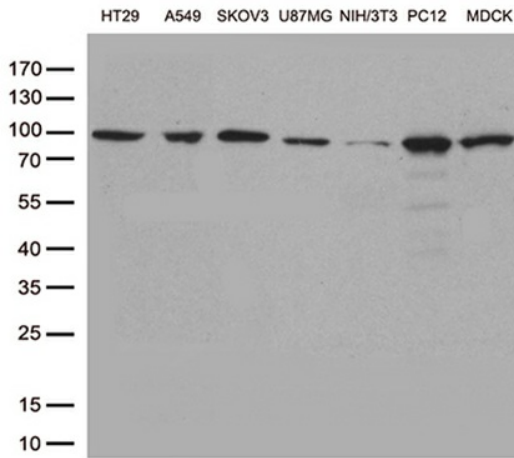
Druggable Genome, Transcription Factors

Protein Pathways:

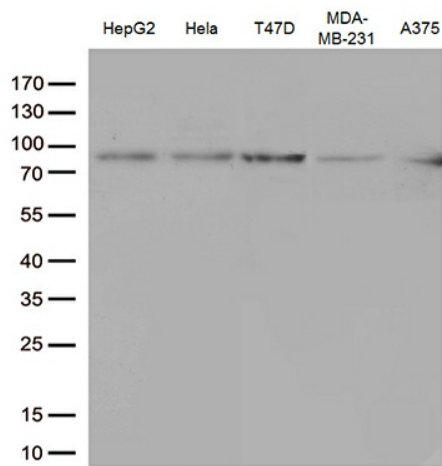
Acute myeloid leukemia, Adipocytokine signaling pathway, Chemokine signaling pathway, Jak-STAT signaling pathway, Pancreatic cancer, Pathways in cancer

Product images:

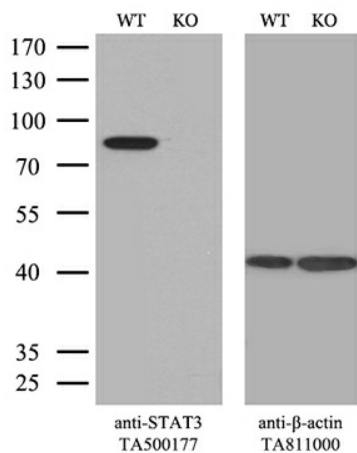
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY STAT3 (Cat# [RC212394], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-STAT3 (Cat# [TA500177]). Positive lysates [LY403728] (100ug) and [LC403728] (20ug) can be purchased separately from OriGene.



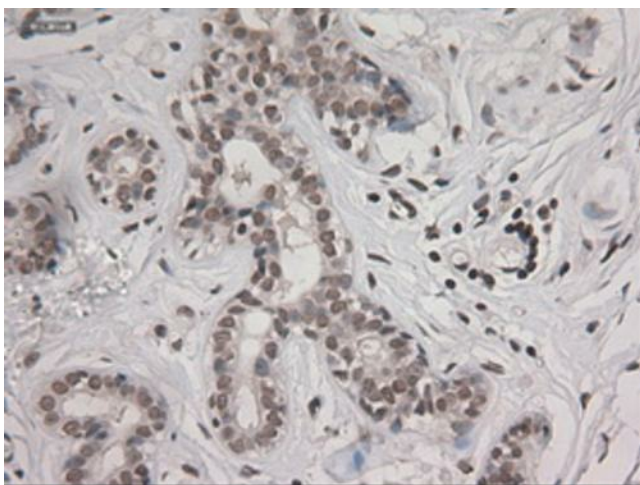
Western blot analysis of extracts (35ug) from different cell line by using anti-STAT3 monoclonal antibody (1:500).



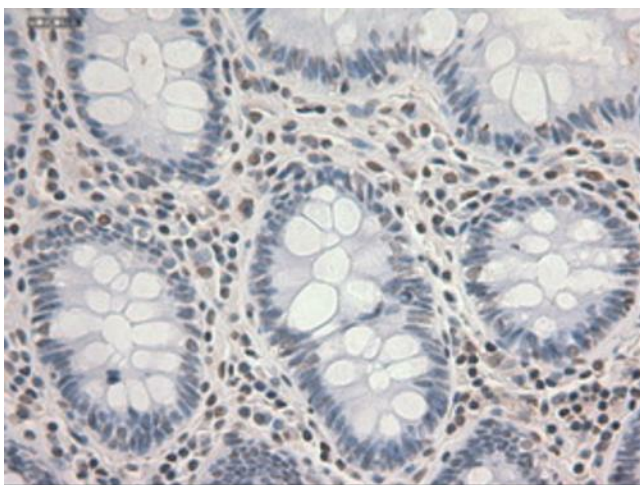
Western blot analysis of extracts (35ug) from different cell line by using anti-STAT3 monoclonal antibody (1:500).



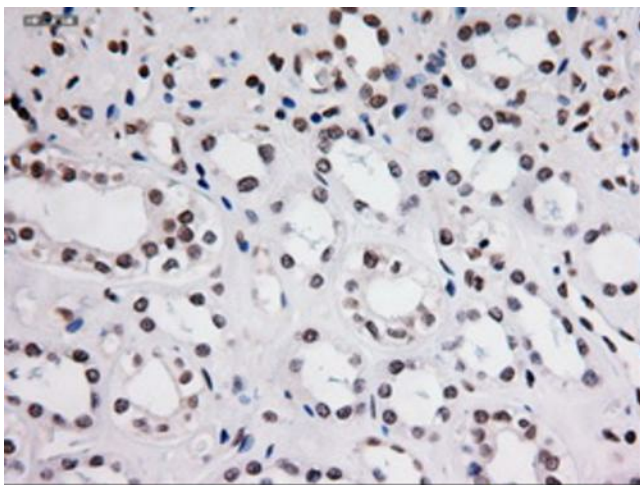
Equivalent amounts of cell lysates (10 ug per lane) of wild-type HeLa cells (WT, Cat# LC810HELA) and STAT3-Knockout HeLa cells (KO, Cat# [LC810228]) were separated by SDS-PAGE and immunoblotted with anti-STAT3 monoclonal antibody [TA500177]. Then the blotted membrane was stripped and reprobed with anti- β -actin antibody ([TA811000]) as a loading control (1:500).



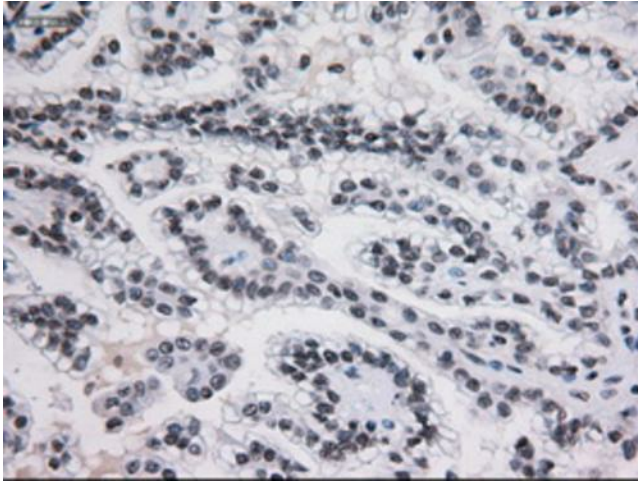
Immunohistochemical staining of paraffin-embedded breast within the normal limits using anti-STAT3 ([TA500177]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



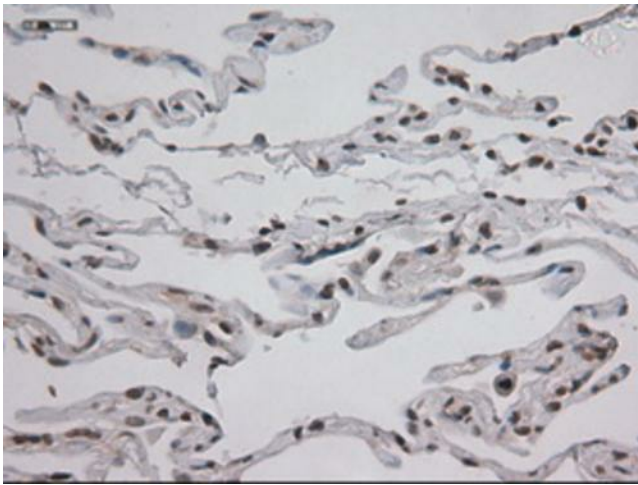
Immunohistochemical staining of paraffin-embedded colon within the normal limits using anti-STAT3 ([TA500177]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



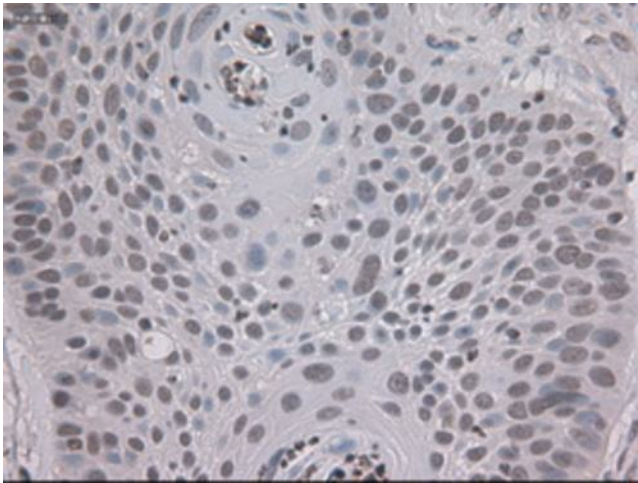
Immunohistochemical staining of paraffin-embedded kidney within the normal limits using anti-STAT3 ([TA500177]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



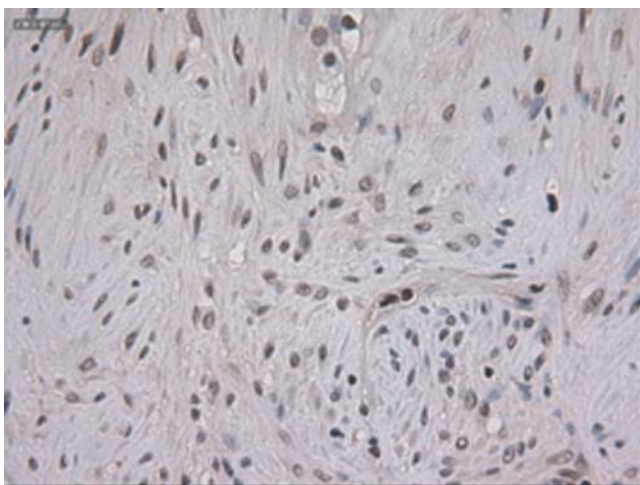
Immunohistochemical staining of paraffin-embedded Carcinoma of kidney using anti-STAT3 ([TA500177]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



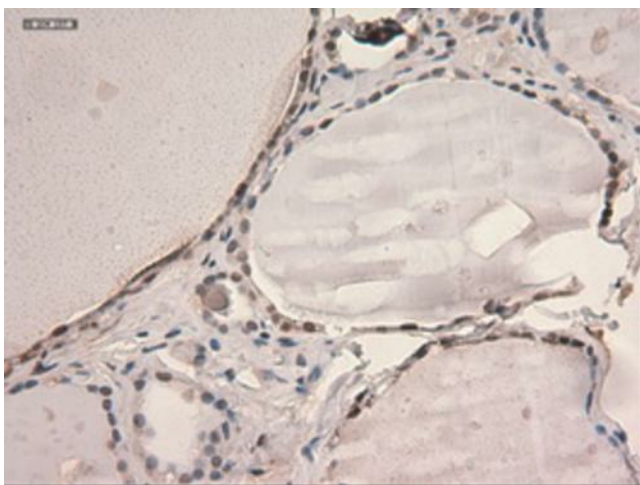
Immunohistochemical staining of paraffin-embedded lung within the normal limits using anti-STAT3 ([TA500177]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Carcinoma of lung using anti-STAT3 ([TA500177]) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded Carcinoma of pancreas using anti-STAT3 (TA500177) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.



Immunohistochemical staining of paraffin-embedded thyroid within the normal limits using anti-STAT3 (TA500177) mouse monoclonal antibody. Heat-induced epitope retrieval by EDTA solution buffer pH 8.0 at 120°C for 3 min.