



STAT3 Recombinant Monoclonal Antibody

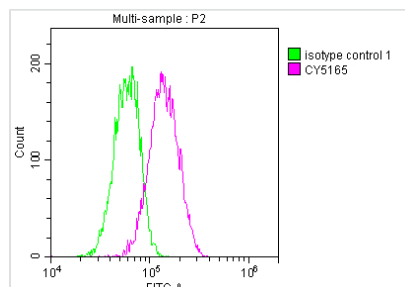
Product Code	CSB-RA546821A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P40763
Immunogen	A synthesized peptide derived from human STAT3
Species Reactivity	Human
Tested Applications	ELISA, FC; Recommended dilution: FC:1:20-1:200
Relevance	Signal transducer and transcription activator that mediates cellular responses to interleukins, KITLG/SCF, LEP and other growth factors (PubMed:10688651, PubMed:12359225, PubMed:12873986, PubMed:15194700, PubMed:17344214, PubMed:18242580, PubMed:23084476). Once activated, recruits coactivators, such as NCOA1 or MED1, to the promoter region of the target gene (PubMed:17344214). May mediate cellular responses to activated FGFR1, FGFR2, FGFR3 and FGFR4 (PubMed:12873986). Binds to the interleukin-6 (IL-6)-responsive elements identified in the promoters of various acute-phase protein genes (PubMed:12359225). Activated by IL31 through IL31RA (PubMed:15194700). Acts as a regulator of inflammatory response by regulating differentiation of naive CD4(+) T-cells into T-helper Th17 or regulatory T-cells (Treg): deacetylation and oxidation of lysine residues by LOXL3, leads to disrupt STAT3 dimerization and inhibit its transcription activity (PubMed:28065600). Involved in cell cycle regulation by inducing the expression of key genes for the progression from G1 to S phase, such as CCND1 (PubMed:17344214). Mediates the effects of LEP on melanocortin production, body energy homeostasis and lactation (By similarity). May play an apoptotic role by transactivating BIRC5 expression under LEP activation (PubMed:18242580). Cytoplasmic STAT3 represses macroautophagy by inhibiting EIF2AK2/PKR activity (PubMed:23084476). Plays a crucial role in basal beta cell functions, such as regulation of insulin secretion (By similarity).
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling; Cancer; Cardiovascular; Developmental biology; Signal transduction; Stem cells



Gene Names STAT3

Clone No. 9C7

Image



Overlay histogram showing HeLa cells stained with CSB-RA546821A0HU (red line) at 1:50. The cells were fixed with 70% Ethylalcohol (18h) and then incubated in 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody ($1\mu\text{g}/1 \times 10^6$ cells) for 1 h at 4?. The secondary antibody used was FITC-conjugated goat anti-rabbit IgG (H+L) at 1/200 dilution for 30min at 4?. Control antibody (green line) was Rabbit IgG ($1\mu\text{g}/1 \times 10^6$ cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

CUSABIO immunized a rabbit with a human STAT3-derived peptide and obtained splenocytes from this immunized rabbit. Extract RNA from the splenocytes and perform reverse transcription of the extracted RNA to convert it into cDNA. With the synthesized cDNA as the template, the STAT3 antibody gene will be extended with the degenerate primer. PCR amplified the STAT3 antibody gene fragments. The purified STAT3 antibody gene fragments were cloned into an expression vector and transfected into a host system for antibody expression. The STAT3 recombinant monoclonal antibodies were purified from the cell culture supernatant using affinity chromatography. The binding specificity and affinity of the recombinant STAT3 monoclonal antibody were confirmed using two applications ELISA and FC. This antibody specifically recognizes the human STAT3 protein.