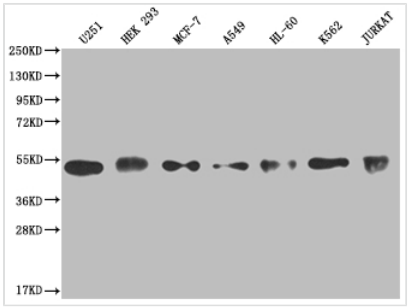
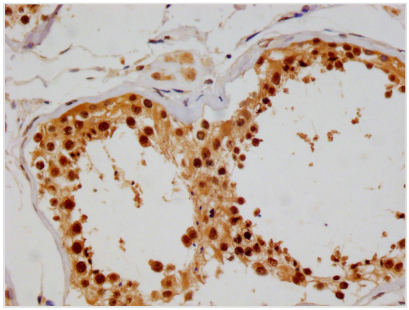
COPS3 Recombinant Monoclonal Antibody

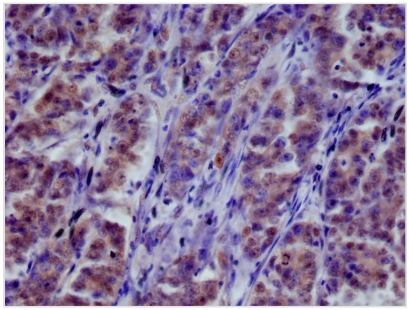
Product Code	CSB-RA556985A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q9UNS2
Immunogen	A synthesized peptide derived from human COPS3
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC, IF, FC; Recommended dilution: WB:1:500-1:2000, IHC:1:50-1:200, IF:1:50-1:200, FC:1:50-1:200
Relevance	Component of the COP9 signalosome complex (CSN), a complex involved in various cellular and developmental processes. The CSN complex is an essential regulator of the ubiquitin (Ubl) conjugation pathway by mediating the deneddylation of the cullin subunits of SCF-type E3 ligase complexes, leading to decrease the Ubl ligase activity of SCF-type complexes such as SCF, CSA or DDB2. The complex is also involved in phosphorylation of p53/TP53, c-jun/JUN, IkappaBalpha/NFKBIA, ITPK1 and IRF8/ICSBP, possibly via its association with CK2 and PKD kinases. CSN-dependent phosphorylation of TP53 and JUN promotes and protects degradation by the Ubl system, respectively. {ECO:0000269|PubMed:11285227, ECO:0000269|PubMed:11337588, ECO:0000269|PubMed:12628923, ECO:0000269|PubMed:12732143, ECO:0000269|PubMed:9535219}.
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	Neuroscience; Cell biology
Gene Names	COPS3
Clone No.	3F9
Image	



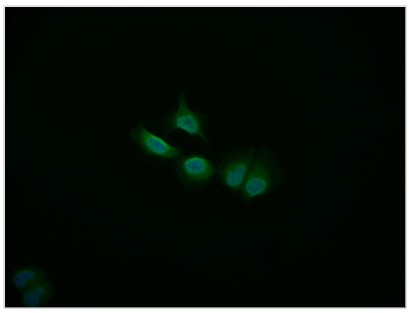
Western Blot
Positive WB detected in: U251 whole cell lysate, HEK293 whole cell lysate, MCF-7 whole cell lysate, A549 whole cell lysate, HL-60 whole cell lysate, K562 whole cell lysate, Jurkat whole cell lysate
All lanes: COPS3 antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 48, 46 kDa
Observed band size: 40-55 kDa



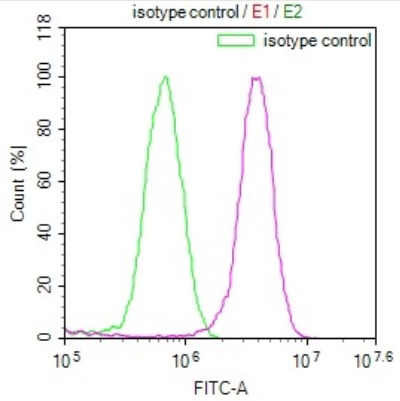
IHC image of CSB-RA556985A0HU diluted at 1:100 and staining in paraffin-embedded human testis tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB.



IHC image of CSB-RA556985A0HU diluted at 1:100 and staining in paraffin-embedded human colon cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB.



Immunofluorescence staining of A549 cell with CSB-RA556985A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 535-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing MCF7 cells stained with CSB-RA556985A0HU (red line) at 1:100. The cells were fixed in 4% formaldehyde and permeated by 0.2% TritonX-100. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1ug/1*10^6cells) for 45min at 4?. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4?.Control antibody (green line) was rabbit IgG (1ug/1*10^6cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

To produce the COPS3 recombinant monoclonal antibody, a series of complex processes is required. First, the COPS3 monoclonal antibody is collected and its gene sequence is determined. A COPS3 monoclonal antibody gene-carrying vector is then constructed and introduced into a host cell line for culture. A synthesized peptide from human COPS3 is used as an immunogen during COPS3 monoclonal antibody production. Affinity chromatography is employed to purify the resulting COPS3 recombinant monoclonal antibody, which is then evaluated for specificity using multiple applications, including ELISA, WB, IHC, IF, and FC.

The COPS3 recombinant monoclonal antibody can react with human COPS3 protein.COPS3, also known as CSN3, is a component of the COP9 signalosome complex (CSN) which is a highly conserved protein complex found in eukaryotic cells. The CSN is involved in the regulation of various cellular processes such as protein degradation, cell cycle control, DNA repair, and signal transduction. COPS3 plays a role in the stability and activity of the CSN complex, and its function is essential for the proper function of the complex.