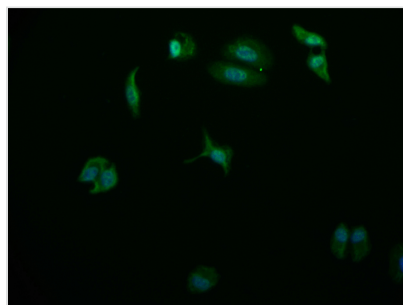




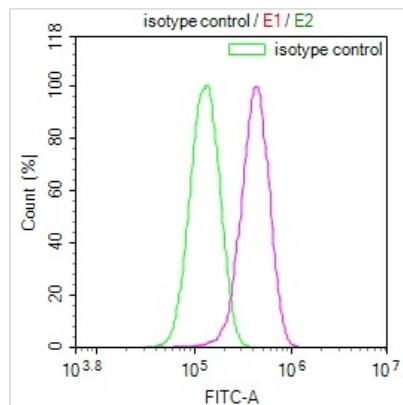
USP24 Recombinant Monoclonal Antibody

Product Code	CSB-RA178866A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q9UPU5
Immunogen	A synthesized peptide derived from human USP24
Species Reactivity	Human
Tested Applications	ELISA, IF, FC; Recommended dilution: IF:1:50-1:200, FC:1:50-1:200
Relevance	Ubiquitin-specific protease that regulates cell survival in various contexts through modulating the protein stability of some of its substrates including DDB2, MCL1 or TP53. Plays a positive role on ferritinophagy where ferritin is degraded in lysosomes and releases free iron. {ECO:0000269 PubMed:23159851, ECO:0000269 PubMed:29695420}.
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; Cell biology
Gene Names	USP24
Clone No.	11E3

Image



Immunofluorescence staining of HepG2 cell with CSB-RA178866A0HU 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 569-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing HepG2 cells stained with CSB-RA178866A0HU (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*10⁶cells) 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*10⁶cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

The production of the USP24 recombinant monoclonal antibody involves genetic engineering techniques, which include cloning and expression of the gene that encodes for the USP24 monoclonal antibody. To generate the USP24 monoclonal antibody, a synthesized peptide derived from human USP24 protein is used as the immunogen. After obtaining the MAS1L recombinant monoclonal antibody, it is subjected to affinity chromatography purification to ensure high purity. The purified antibody specifically binds to the USP24 protein and has been validated for use in human samples. Three tests including ELISA, IF, and FC have been conducted to verify the quality and specificity of the USP24 recombinant monoclonal antibody.

The USP24 protein belongs to the family of deubiquitinating enzymes (DUBs) and plays a critical role in regulating the ubiquitin-proteasome system (UPS) by removing ubiquitin molecules from proteins that are targeted for degradation. USP24 is a large protein with multiple domains and has been shown to regulate the stability and activity of several key signaling proteins, including Smad proteins involved in TGF- β signaling, TRAF2 and TRAF6 proteins involved in TNF- α signaling, and HIF-1 α involved in the hypoxia response. In addition, USP24 has been implicated in several cellular processes, including DNA damage repair, autophagy, and cell cycle progression. Overall, the main function of USP24 is to regulate protein homeostasis and cellular signaling by modulating the ubiquitination status of its substrates.