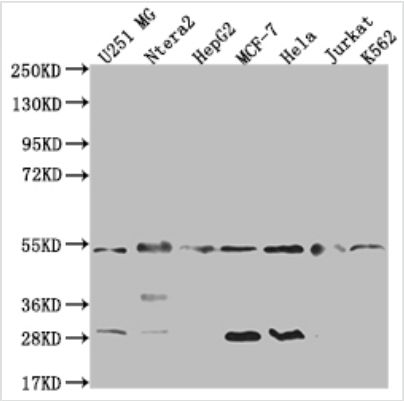
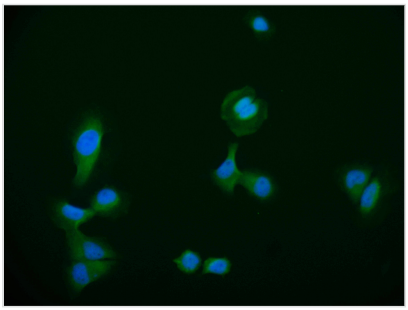
DNAJA1 Recombinant Monoclonal Antibody

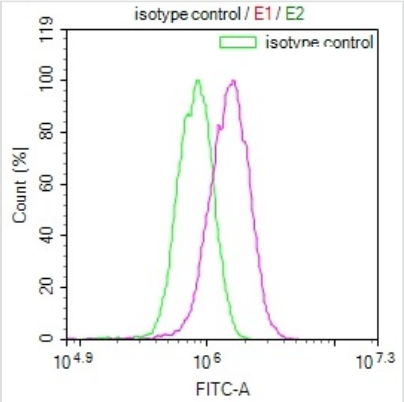
Product Code	CSB-RA589492A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P31689
Immunogen	A synthesized peptide derived from human DNAJA1
Species Reactivity	Human
Tested Applications	ELISA, WB, IF, FC; Recommended dilution: WB:1:500-1:2000, IF:1:50-1:200, FC:1:50-1:200
Relevance	Co-chaperone for HSPA8/Hsc70 (PubMed:10816573). Stimulates ATP hydrolysis, but not the folding of unfolded proteins mediated by HSPA1A (in vitro) (PubMed:24318877). Plays a role in protein transport into mitochondria via its role as co-chaperone. Functions as co-chaperone for HSPA1B and negatively regulates the translocation of BAX from the cytosol to mitochondria in response to cellular stress, thereby protecting cells against apoptosis (PubMed:14752510). Promotes apoptosis in response to cellular stress mediated by exposure to anisomycin or UV (PubMed:24512202). {ECO:0000269|PubMed:10816573, ECO:0000269|PubMed:14752510, ECO:0000269|PubMed:24318877, ECO:0000269|PubMed:24512202, ECO:0000269|PubMed:9192730}.
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	Signal transduction
Gene Names	DNAJA1
Clone No.	23C6
Image	



Western Blot
Positive WB detected in: U251 whole cell lysate, Ntera-2 whole cell lysate, HepG2 whole cell lysate, MCF-7 whole cell lysate, Hela whole cell lysate, Jurkat whole cell lysate, K562 whole cell lysate
All lanes: DNAJA1 antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 45, 38 kDa
Observed band size: 45-55 kDa



Immunofluorescence staining of A549 cell with CSB-RA589492A0HU 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 550-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing A549 cells stained with CSB-RA589492A0HU (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

The production of the DNAJA1 recombinant monoclonal antibody follows a meticulous and standardized process to ensure its quality and specificity. B cells are initially isolated from an immunized animal, with the synthesized peptide derived from human DNAJA1 used as the immunogen. Total RNA is then extracted from the isolated B cells and converted into cDNA through reverse transcription. The DNAJA1 antibody genes are amplified using PCR with specific primers designed for the antibody constant regions and subsequently inserted into an expression vector. The expression vector is introduced into host cells, allowing for the production of the DNAJA1 recombinant monoclonal antibody. The antibody is harvested from the cell culture supernatant and purified using affinity chromatography, resulting in a highly purified form. Extensive characterization assays, including ELISA, WB, IF, and FC analysis, are performed to validate the antibody's specificity and functionality, ensuring its precise binding to human DNAJA1 protein.