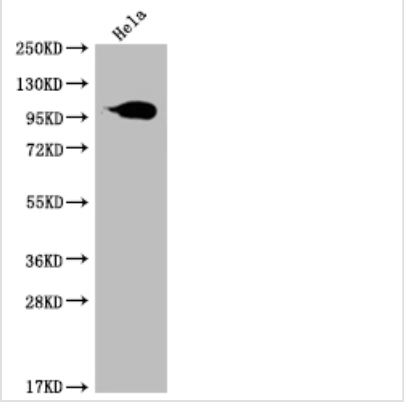
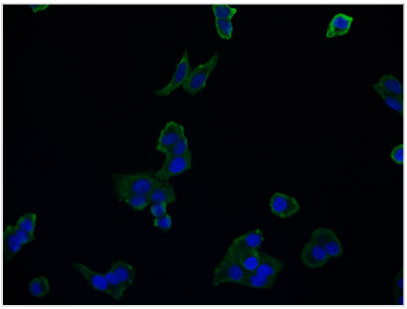
ACO1 Recombinant Monoclonal Antibody

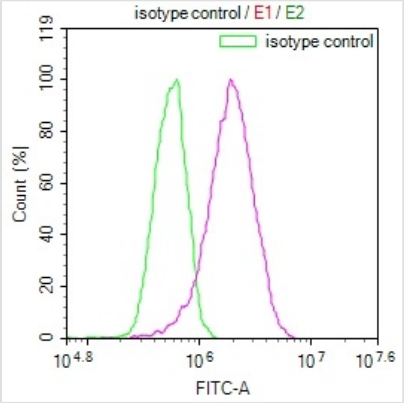
Product Code	CSB-RA298469A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P21399
Immunogen	A synthesized peptide derived from human ACO1
Species Reactivity	Human
Tested Applications	ELISA, WB, IF, FC; Recommended dilution: WB:1:500-1:2000, IF:1:50-1:200, FC:1:50-1:200
Relevance	Bifunctional iron sensor that switches between 2 activities depending on iron availability (PubMed:1946430, PubMed:1281544, PubMed:8041788). Iron deprivation, promotes its mRNA binding activity through which it regulates the expression of genes involved in iron uptake, sequestration and utilization (PubMed:1946430, PubMed:1281544, PubMed:8041788, PubMed:23891004). Binds to iron-responsive elements (IRES) in the untranslated region of target mRNAs preventing for instance the translation of ferritin and aminolevulinic acid synthase and stabilizing the transferrin receptor mRNA (PubMed:1946430, PubMed:1281544, PubMed:8041788, PubMed:23891004). {ECO:0000269|PubMed:1281544, ECO:0000269|PubMed:1946430, ECO:0000269|PubMed:23891004, ECO:0000269|PubMed:8041788}.; Conversely, when cellular iron levels are high, binds a 4Fe-4S cluster which precludes RNA binding activity and promotes the aconitase activity, the isomerization of citrate to isocitrate via cis-aconitate. {ECO:0000269|PubMed:1281544, ECO:0000269|PubMed:1946430, ECO:0000269|PubMed:8041788}.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in 10mM phosphate buffered saline , pH 7.4, 150mM sodium chloride, 0.05% BSA, 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; Metabolism; Signal transduction
Target Names	ACO1
Clone No.	22C10
Image	



Western Blot
Positive WB detected in: Hela whole cell lysate
All lanes: ACO1 antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 100 kDa
Observed band size: 95-130 kDa



Immunofluorescence staining of HepG2 cell with CSB-RA298469A0HU 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 511-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing HepG2 cells stained with CSB-RA298469A0HU (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.

Usage

For Research Use Only. Not for use in diagnostic or therapeutic procedures.