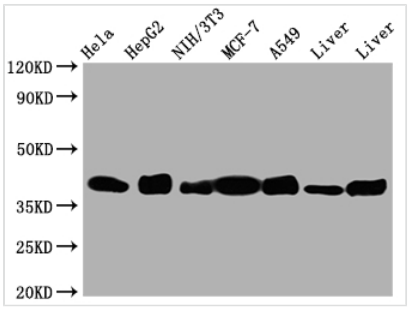
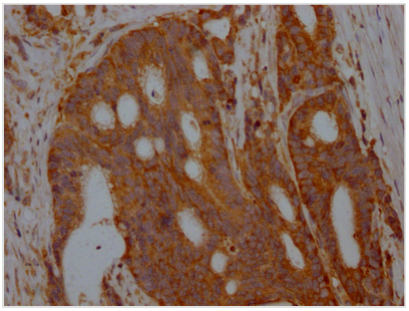
ALDOA Recombinant Monoclonal Antibody

Product Code	CSB-RA571479A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P04075
Immunogen	A synthesized peptide derived from human Aldolase
Species Reactivity	Human, Mouse, Rat
Tested Applications	ELISA, WB, IHC, IF; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IF:1:20-1:200
Relevance	Plays a key role in glycolysis and gluconeogenesis. In addition, may also function as scaffolding protein (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	Cancer; Metabolism; Signal transduction
Gene Names	ALDOA
Clone No.	7D8

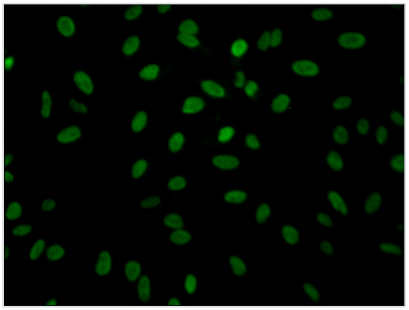
Image



Western Blot
Positive WB detected in: Hela whole cell lysate, HepG2 whole cell lysate, NIH/3T3 whole cell lysate, A549 whole cell lysate, Mouse Liver whole cell lysate, Rat Liver whole cell lysate
All lanes: Aldolase antibody at 1:1000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 40, 46 kDa
Observed band size: 40 kDa



IHC image of CSB-RA571479A0HU 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? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



Immunofluorescence staining of Hela Cells with CSB-RA571479A0HU at 1:50, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeated by 0.2% TritonX-100, and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?. Nuclear DNA was labeled in blue with DAPI. The secondary antibody was FITC-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

B cells were produced by immunizing an animal with a synthesized peptide originating from human ALDOA. The B cells were then fused with myeloma cells to create hybridomas. The variable light (VL) and variable heavy (VH) domains of the ALDOA antibody-producing hybridomas' cDNA were sequenced to serve as a model for vector construction in the recombinant generation. The ALDOA monoclonal antibody gene-containing vector was transfected into cells for culture, and the ALDOA recombinant monoclonal antibody was obtained and purified from the cell culture supernatant using affinity chromatography. The specificity of the purified antibody was tested in ELISA, WB, IHC, and IF applications, and this antibody was determined to identify ALDOA protein from human, mouse, and rat samples.

The ALDOA protein is an enzyme that plays a crucial role in glycolysis, the metabolic pathway that converts glucose into pyruvate, yielding energy in the form of ATP. Specifically, ALDOA catalyzes the conversion of fructose-1,6-bisphosphate to glyceraldehyde-3-phosphate and dihydroxyacetone phosphate. This reaction is the fourth step in glycolysis and is important for generating energy in the form of ATP and precursor molecules for other metabolic pathways. In addition to its role in glycolysis, ALDOA has also been implicated in other cellular processes such as cytoskeleton organization, cell migration, and transcriptional regulation.