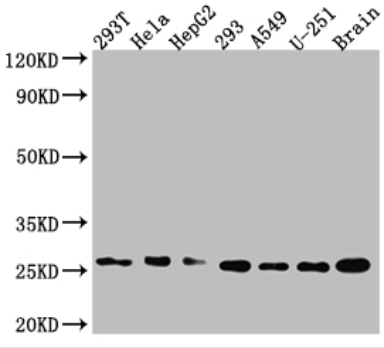
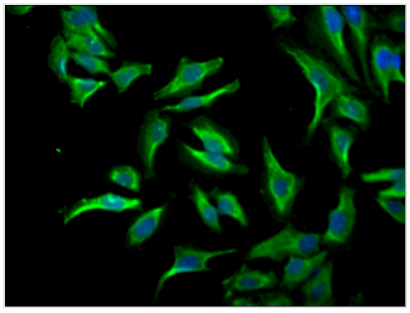
ID1 Recombinant Monoclonal Antibody

Product Code	CSB-RA253477A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P41134
Immunogen	A synthesized peptide derived from human Id1
Species Reactivity	Human, Mouse
Tested Applications	ELISA, WB, IF; Recommended dilution: WB:1:500-1:5000, IF:1:20-1:200
Relevance	Transcriptional regulator (lacking a basic DNA binding domain) which negatively regulates the basic helix-loop-helix (bHLH) transcription factors by forming heterodimers and inhibiting their DNA binding and transcriptional activity. Implicated in regulating a variety of cellular processes, including cellular growth, senescence, differentiation, apoptosis, angiogenesis, and neoplastic transformation. Inhibits skeletal muscle and cardiac myocyte differentiation. Regulates the circadian clock by repressing the transcriptional activator activity of the CLOCK-ARNTL/BMAL1 heterodimer (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	Epigenetics and Nuclear Signaling; Cancer; Signal transduction
Gene Names	ID1
Clone No.	2C7

Image



Western Blot
Positive WB detected in: 293T whole cell lysate, Hela whole cell lysate, HepG2 whole cell lysate 293 whole cell lysate, A549 whole cell lysate, U-251 whole cell lysate, Mouse Brain whole cell lysate
All lanes: Id1 antibody at 1:1000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 17, 16 kDa
Observed band size: 26 kDa



Immunofluorescence staining of Hela Cells with CSB-RA253477A0HU 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

To yield the recombinant monoclonal antibody ID1, the ID1 monoclonal antibody is harvested and its gene is sequenced, followed by the construction of an ID1 monoclonal antibody gene-carrying vector, and finally by transfection of the constructed plasmid vector into a host cell line for culture. The synthesized peptide derived from human ID1 is used as the immunogen for the generation of the ID1 monoclonal antibody. Afterward, the resulting ID1 recombinant monoclonal antibody is subjected to affinity chromatography, and its specificity is tested through ELISA, WB, and IF applications. It can react with human and mouse ID1 proteins.

The ID1 is a transcription factor that plays important roles in the regulation of cell differentiation, the control of the cell cycle, angiogenesis, and tumor progression. By inhibiting the activity of bHLH factors, ID1 promotes the proliferation of undifferentiated cells and prevents their differentiation into specialized cell types. ID1 promotes the transition from the G1 to S phase by inhibiting the activity of cyclin-dependent kinase inhibitors (CKIs), which are negative regulators of the cell cycle. Dysregulation of ID1 activity has been implicated in various diseases, including cancer and cardiovascular disease.