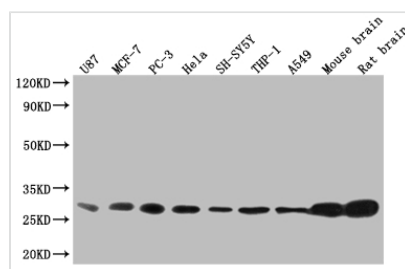




YWHAB Recombinant Monoclonal Antibody

Product Code	CSB-RA616077A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P31946
Immunogen	A synthesized peptide derived from human YWHAB
Species Reactivity	Human, Mouse, Rat
Tested Applications	ELISA, WB, IF, FC; Recommended dilution: WB:1:500-1:2000, IF:1:50-1:200, FC:1:50-1:200
Relevance	Adapter protein implicated in the regulation of a large spectrum of both general and specialized signaling pathways. Binds to a large number of partners, usually by recognition of a phosphoserine or phosphothreonine motif. Binding generally results in the modulation of the activity of the binding partner. Negative regulator of osteogenesis. Blocks the nuclear translocation of the phosphorylated form (by AKT1) of SRPK2 and antagonizes its stimulatory effect on cyclin D1 expression resulting in blockage of neuronal apoptosis elicited by SRPK2. Negative regulator of signaling cascades that mediate activation of MAP kinases via AKAP13. {ECO:0000269 PubMed:17717073, ECO:0000269 PubMed:19592491, ECO:0000269 PubMed:21224381}.
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	Neuroscience; Cell biology; Signal transduction; Stem cells
Gene Names	YWHAB
Clone No.	6F6

Image



Western Blot

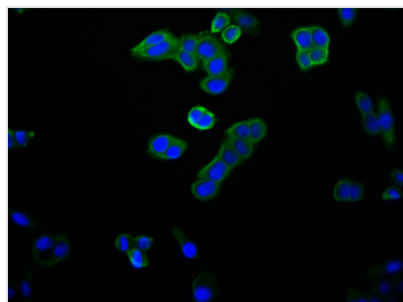
Positive WB detected in: U87 whole cell lysate, MCF-7 whole cell lysate, PC3 whole cell lysate, Hela whole cell lysate, SH-SY5Y whole cell lysate, THP-1 whole cell lysate, A549 whole cell lysate, Mouse brain tissue, Rat brain tissue
All lanes: YWHAB antibody at 1:2000

Secondary

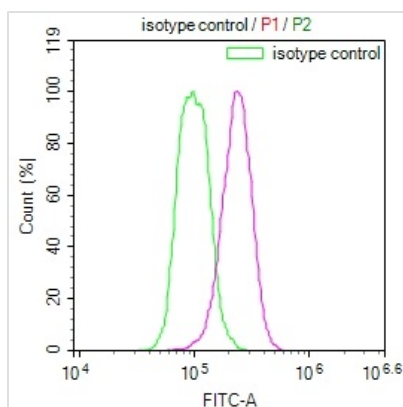
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 29, 28 kDa



Observed band size: 25-35 kDa



Immunofluorescence staining of PC-3 cell with CSB-RA616077A0HU 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 494-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing Hela cells stained with CSB-RA616077A0HU (red line) at 1:100. The cells were fixed in 4% formaldehyde (15min) and permeated by 0.2% TritonX-100 for 10min. 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 creation of the YWHAB recombinant monoclonal antibody is a complicated process with several steps involved. Initially, the YWHAB monoclonal antibody is obtained, and its gene sequence is determined. Then, a vector carrying the YWHAB monoclonal antibody gene is constructed and transfected into a host cell line for culture. The YWHAB monoclonal antibody is produced using a synthesized peptide derived from human YWHAB as an immunogen. Afterward, the resulting YWHAB monoclonal antibody is purified through affinity chromatography from cell culture supernatant and analyzed for specificity using ELISA, WB, IF, and FC applications. It can react with three species, including human, mouse, and rat.

The YWHAB protein, also known as 14-3-3 beta protein, belongs to the 14-3-3 family of proteins that are involved in the regulation of multiple cellular processes such as signal transduction, cell cycle control, apoptosis, and protein trafficking. YWHAB interacts with a wide range of proteins, including transcription factors, enzymes, and structural proteins, and regulates their activity and localization within the cell. It is involved in the regulation of various signaling pathways, such as the AKT and MAPK pathways, and is important for cell proliferation, differentiation, and survival. Furthermore, YWHAB has been implicated in the pathogenesis of several diseases, including cancer, neurodegenerative disorders, and metabolic diseases, indicating its crucial role in maintaining cellular homeostasis.