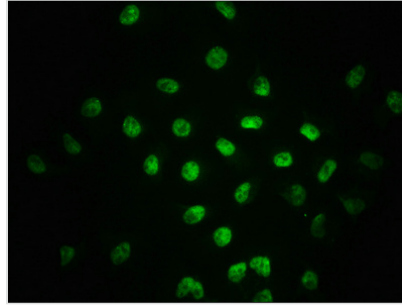




Phospho-SMAD2 (S255) Recombinant Monoclonal Antibody

Product Code	CSB-RA618017A255phHU
Abbreviation	Mothers against decapentaplegic homolog 2
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q15796
Immunogen	A synthesized peptide derived from Human Phospho-SMAD2 (S255)
Species Reactivity	Human
Tested Applications	ELISA, IF; Recommended dilution: IF:1:20-1:200
Relevance	Receptor-regulated SMAD (R-SMAD) that is an intracellular signal transducer and transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinases. Binds the TRE element in the promoter region of many genes that are regulated by TGF-beta and, on formation of the SMAD2/SMAD4 complex, activates transcription. May act as a tumor suppressor in colorectal carcinoma. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator.
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
Alias	Mothers against decapentaplegic homolog 2, MAD homolog 2, Mothers against DPP homolog 2, JV18-1, Mad-related protein 2, hMAD-2, SMAD family member 2, SMAD 2, Smad2, hSMAD2, SMAD2, MADH2, MADR2
Immunogen Species	Homo sapiens (Human)
Research Area	Signal Transduction
Gene Names	SMAD2
Clone No.	2A12
Image	



Immunofluorescence staining of A549 cells with CSB-RA618017A255phHU at 1:100, counter-stained with DAPI. The cells were fixed in 4% formaldehyde, permeabilized using 0.2% Triton X-100 and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4?. The secondary antibody was Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG (H+L).

Description

CUSABIO developed the phospho-SMAD2 (S255) recombinant monoclonal antibody using protein technology and DNA recombinant techniques. The first step is to obtain the phospho-SMAD2 (S255) antibody gene. Immunizing an animal with a synthesized peptide derived from human phospho-SMAD2 (S255) and isolating B cells. These B cells are then screened to isolate positive ones, followed by single clone identification. Next, the light and heavy chains of the phospho-SMAD2 (S255) antibody are amplified via PCR and integrated into a plasmid vector to construct a recombinant vector. This recombinant vector is subsequently transfected into host cells to facilitate antibody expression. The phospho-SMAD2 (S255) recombinant monoclonal antibody is purified from the supernatant of cell culture using affinity chromatography. Finally, stringent validation is conducted to ensure its accuracy and efficacy for the detection of human SMAD2 protein phosphorylated at S255 residue in ELISA and IF applications.