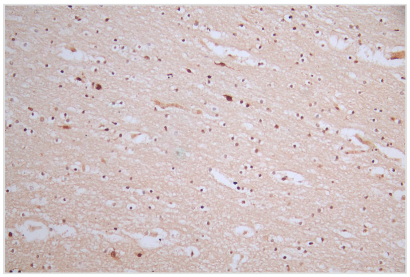
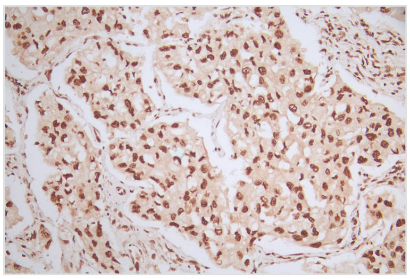
Phospho-MDM2 (S166) Recombinant Monoclonal Antibody

Product Code	CSB-RA980583A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q00987
Immunogen	A synthesized peptide derived from Human MDM2
Species Reactivity	Human
Tested Applications	ELISA, IHC, IF, FC; Recommended dilution: IHC:1:50-1:200, IF:1:50-1:200, FC:1:50-1:200
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;Cell biology
Gene Names	MDM2
Clone No.	14F8

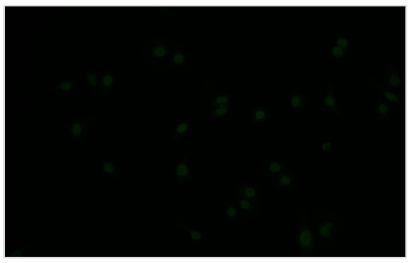
Image



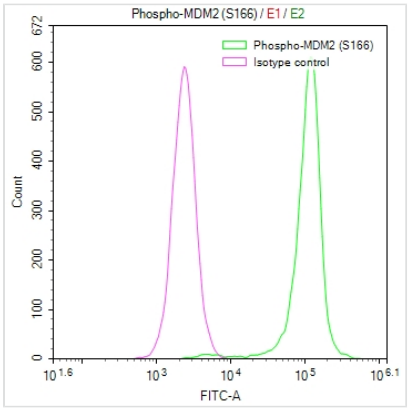
IHC image of CSB-RA980583A0HU diluted at 1:50 and staining in paraffin-embedded human brain tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.57% DAB.



IHC image of CSB-RA980583A0HU diluted at 1:50 and staining in paraffin-embedded human lung 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°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.57% DAB.



Immunofluorescence staining of HepG2 with CSB-RA980583A0HU at 1:10, 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 517-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing Hela cells stained with CSB-RA980583A0HU (red line) at 1:50. 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 (1μg/1*10^{6}cells) 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 (1μg/1*10^{6}cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

To produce the phospho-MDM2 (S166) recombinant monoclonal antibody, in vitro expression systems are harnessed, involving the cloning of DNA sequences of MDM2 antibodies obtained from immunoreactive rabbits. The immunogen used is a synthesized peptide derived from the human MDM2 protein that is phosphorylated at S166. Subsequently, the genes encoding the MDM2 antibodies are inserted into plasmid vectors, and these recombinant plasmid vectors are transfected into host cells to facilitate antibody expression. Post-expression, the phospho-MDM2 (S166) recombinant monoclonal antibody undergoes affinity-chromatography purification and is extensively tested for functionality in ELISA, IHC, IF, and FC applications, confirming its reactivity with the human MDM2 protein phosphorylated at S166.

MDM2 is a critical regulator of the tumor suppressor protein p53. Phosphorylation at S166 reduces MDM2's ability to target p53 for degradation, allowing p53 to accumulate and execute its functions in response to cellular stress and DNA damage.