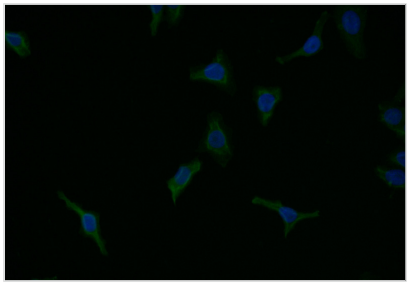
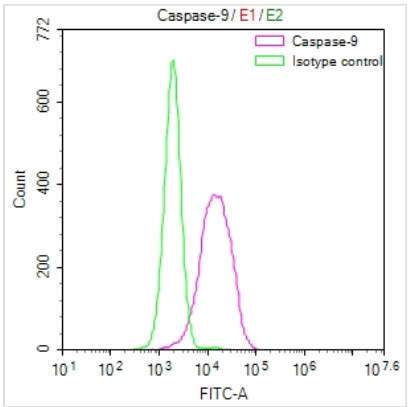
CASP9 Recombinant Monoclonal Antibody

Product Code	CSB-RA940979A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P55211
Immunogen	A synthesized peptide derived from Human CASP9
Species Reactivity	Human
Tested Applications	ELISA, IF, FC; Recommended dilution: 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	Cancer;Cell biology;Metabolism
Gene Names	CASP9
Clone No.	8G5

Image



Immunofluorescence staining of HepG2 with CSB-RA940979A0HU at 1:7, 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 525-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Overlay Peak curve showing HepG2 cells stained with CSB-RA940979A0HU (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*10^6cells) 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*10^6cells) used under the same conditions. Acquisition of >10,000 events was performed.

Description

The process of generating a recombinant monoclonal antibody against CASP9 began with the immunization of a rabbit using a synthesized peptide from human CASP9 protein. B cells were subsequently isolated from the immunized rabbit, and RNA was extracted from these B cells. The extracted RNA was reverse-transcribed into cDNA, which was employed as a template to extend CASP9 antibody genes using degenerate primers. These extended CASP9 antibody genes were incorporated into a plasmid vector and transfected into host cells for expression. The CASP9 recombinant monoclonal antibody was then purified from the cell culture supernatant through affinity chromatography and subjected to ELISA, IF, and FC applications. It shows specific reactivity with human CASP9 protein.

CASP9 is a key regulator of apoptosis, serving as the initiator caspase in the intrinsic pathway. Its activation marks the commitment of a cell to undergo programmed cell death, a fundamental process in development, tissue homeostasis, and the elimination of damaged or potentially harmful cells.