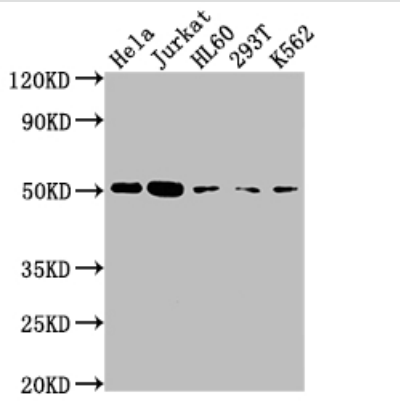
CASP2 Recombinant Monoclonal Antibody

Product Code	CSB-RA291376A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P42575
Immunogen	A synthesized peptide derived from human Caspase-2
Species Reactivity	Human
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	Involved in the activation cascade of caspases responsible for apoptosis execution. Might function by either activating some proteins required for cell death or inactivating proteins necessary for cell survival.
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	CASP2
Clone No.	7E5

Image



Western Blot
Positive WB detected in: Hela whole cell lysate, Jurkat whole cell lysate, HL60 whole cell lysate, 293T whole cell lysate, K562 whole cell lysate
All lanes: CASP2 antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 51, 35, 11 kDa
Observed band size: 51 kDa

Description

CASP2 recombinant monoclonal antibody is produced using a combination of protein and DNA recombinant technologies. The first step involves immunizing mice with a synthesized peptide from human CASP2, followed by the removal of

the spleen cells and extraction of total RNA under aseptic conditions. The cDNA obtained by reverse transcription of RNA is then used as a template for PCR amplification of the CASP2 antibody gene. The amplified gene is inserted into a vector and transfected into host cells for culture. The CASP2 recombinant monoclonal antibody is purified from the cell culture supernatant using affinity chromatography and rigorously verified for its specificity and sensitivity in ELISA and WB experiments for the detection of human CASP2 protein.

The CASP2 protein is a protease that plays an important role in programmed cell death, or apoptosis. CASP2 is unique among the caspase family in that it contains a long prodomain region that can inhibit its activity until specific signaling events occur. When cells are subjected to certain types of stress, such as DNA damage, the prodomain of CASP2 is cleaved, allowing the active protease to cleave and activate downstream targets that promote cell death. CASP2 has been implicated in other cellular processes, such as DNA repair and cell cycle regulation.