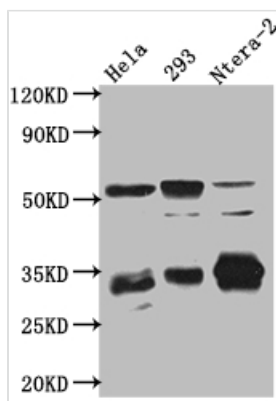




CASP3 Recombinant Monoclonal Antibody

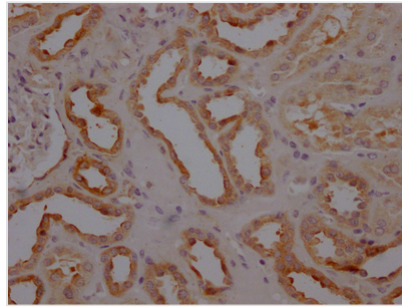
Product Code	CSB-RA241798A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P42574
Immunogen	A synthesized peptide derived from human active + pro Caspase 3
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
Relevance	Involved in the activation cascade of caspases responsible for apoptosis execution. At the onset of apoptosis it proteolytically cleaves poly(ADP-ribose) polymerase (PARP) at a '216-Asp- -Gly-217' bond. Cleaves and activates sterol regulatory element binding proteins (SREBPs) between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain. Cleaves and activates caspase-6, -7 and -9. Involved in the cleavage of huntingtin. Triggers cell adhesion in sympathetic neurons through RET cleavage.
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	CASP3
Clone No.	3H12

Image



Western Blot

Positive WB detected in: HeLa whole cell lysate, HEK293 whole cell lysate, Ntera-2 cell lysate
 All lanes: CASP3 antibody at 1:1000
 Secondary
 Goat polyclonal to rabbit IgG at 1/50000 dilution
 Predicted band size: 32 kDa
 Observed band size: 32, 55, 130 kDa



IHC image of CSB-RA241798A0HU diluted at 1:100 and staining in paraffin-embedded human kidney tissue performed on a Leica Bond™ 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? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

The production of a recombinant CASP3 monoclonal antibody involves four steps. First, the CASP3 monoclonal antibody gene is sequenced. Next, the gene is cloned into a plasmid vector. Then, the recombinant vector is introduced into a host cell line. The CASP3 recombinant monoclonal antibody is then purified from the cell culture supernatant using affinity chromatography. The final step involves testing and characterizing the purified antibody. The CASP3 monoclonal antibody is derived from the CASP3 antibody-producing hybridomas and a synthesized peptide derived from human CASP3 is used as the immunogen during its production. This CASP3 recombinant monoclonal antibody is suitable for use in ELISA, WB, and IHC applications to detect human CASP3 protein.

CASP3 is a cysteine protease that plays a critical role in the execution phase of apoptosis. During apoptosis, CASP3 is activated by proteolytic cleavage and subsequently cleaves various substrates, including structural and nuclear proteins, leading to cell disassembly and death. Once activated, CASP3 cleaves specific cellular proteins and activates other caspases, ultimately leading to the dismantling and death of the cell. CASP3 also plays a role in other cellular processes such as inflammation and cell differentiation. Dysregulation of CASP3 activity has been implicated in various diseases, including cancer, neurodegenerative disorders, and autoimmune diseases.