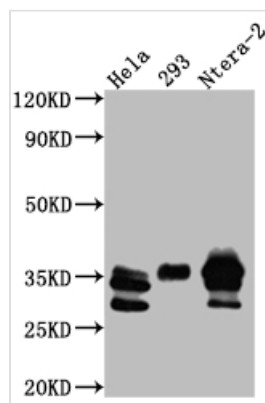




CASP3 Recombinant Monoclonal Antibody

Product Code	CSB-RA182616A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P42574
Immunogen	A synthesized peptide derived from human 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.	2B10

Image



Western Blot

Positive WB detected in: HeLa whole cell lysate, HEK293 whole cell lysate, Ntera-2 whole cell lysate

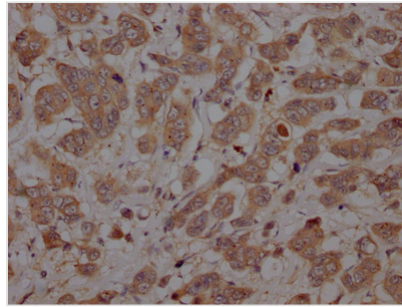
All lanes: Caspase-3 antibody at 1:1000

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 32 kDa

Observed band size: 32, 28 kDa



IHC image of CSB-RA182616A0HU diluted at 1:100 and staining in paraffin-embedded human breast cancer 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 process of producing a CASP3 recombinant antibody involves four steps. First, the CASP3 monoclonal antibody gene is sequenced, followed by incorporating the gene into a plasmid vector. Then, the recombinant vector is introduced into a host cell line, and the CASP3 recombinant monoclonal antibody is purified from the cell culture supernatant using affinity chromatography. The CASP3 monoclonal antibody is derived from hybridomas that produce the CASP3 antibody, and a synthesized peptide derived from human CASP3 is used as the immunogen during the production of the CASP3 monoclonal antibody. This CASP3 recombinant monoclonal antibody is recommended for use in ELISA, WB, and IHC applications to detect human CASP3 protein.

CASP3 is a cysteine protease enzyme that plays a critical role in the process of programmed cell death, or apoptosis, in cells. When cells undergo apoptosis, caspase-3 is activated by upstream caspases and cleaves a variety of cellular proteins, ultimately leading to the destruction of the cell. CASP3 is responsible for many of the characteristic changes that occur during apoptosis, such as DNA fragmentation, nuclear condensation, and plasma membrane blebbing. It is also involved in the regulation of inflammation and the immune response. In addition to its role in apoptosis, caspase-3 has been implicated in other cellular processes, including cell proliferation and differentiation.