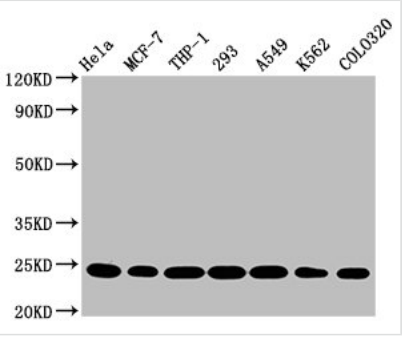
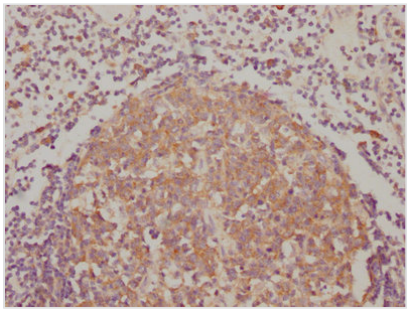
BAK1 Recombinant Monoclonal Antibody

Product Code	CSB-RA624111A0HU
Abbreviation	Bcl-2 homologous antagonist/killer
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q16611
Immunogen	A synthesized peptide derived from human BAK1
Species Reactivity	Human
Tested Applications	ELISA, WB, IHC, FC, IP; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IP:1:200-1:1000
Relevance	Plays a role in the mitochondrial apoptosic process. Upon arrival of cell death signals, promotes mitochondrial outer membrane (MOM) permeabilization by oligomerizing to form pores within the MOM. This releases apoptogenic factors into the cytosol, including cytochrome c, promoting the activation of caspase 9 which in turn processes and activates the effector caspases.
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
Alias	Bcl-2 homologous antagonist/killer, Apoptosis regulator BAK, Bcl-2-like protein 7, Bcl2-L-7, BAK1, BAK, BCL2L7, CDN1
Immunogen Species	Homo sapiens (Human)
Research Area	Cell Biology
Gene Names	BAK1
Clone No.	8D1

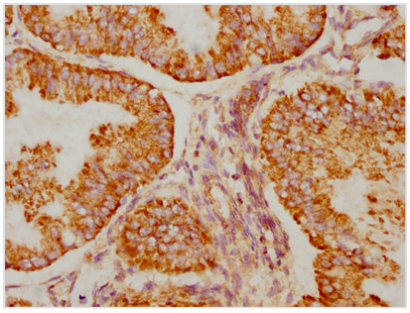
Image



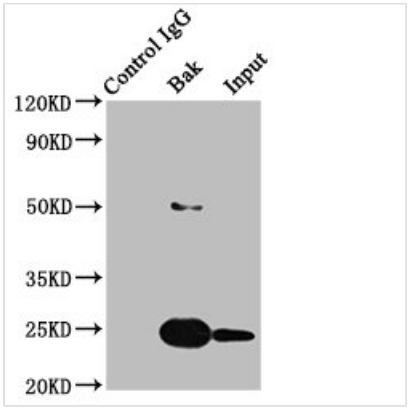
Western Blot
Positive WB detected in: Hela whole cell lysate, MCF-7 whole cell lysate, THP-1 whole cell lysate, 293 whole cell lysate, A549 whole cell lysate, K562 whole cell lysate, Colo320 whole cell lysate
All lanes: BAK1 antibody at 0.9µg/ml
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 24, 17 KDa
Observed band size: 24 KDa



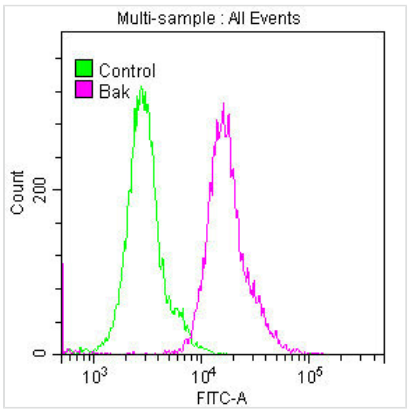
IHC image of CSB-RA624111A0HU diluted at 1:90 and staining in paraffin-embedded human lymph node tissue performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



IHC image of CSB-RA624111A0HU diluted at 1:90 and staining in paraffin-embedded human endometrial 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 biotinylated secondary antibody and visualized using an HRP conjugated SP system.



Immunoprecipitating BAK1 in HEK293 whole cell lysate
Lane 1: Rabbit control IgG instead of CSB-RA624111A0HU in HEK293 whole cell lysate. For western blotting, a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000)
Lane 2: CSB-RA624111A0HU (3μg) + HEK293 whole cell lysate (500μg)
Lane 3: HEK293 whole cell lysate (20μg)



Overlay histogram showing Hela cells stained with CSB-RA624111A0HU (red line) at 1:50. The cells were fixed with 70% Ethylalcohol (18h) and then permeabilized with 0.3% Triton X-100 for 2 min. The cells were then incubated in 1x PBS /10% normal goat serum to block non-specific protein-protein interactions followed by primary antibody for 1 h at 4°C. The secondary antibody used was FITC goat anti-rabbit IgG (H+L) at 1/200 dilution for 1 h at 4°C. Control antibody (green line) was used under the same conditions. Acquisition of >10,000 events was performed.

Description

The creation of the BAK1 antibody by CUSABIO involves a series of steps. Initially, an animal is immunized with a synthetic peptide derived from human BAK1, prompting the generation of antibodies. These antibodies are then

sequenced, and the corresponding antibody gene is synthesized. CUSABIO inserts the BAK1 antibody gene into plasma vectors, which are subsequently transfected into mammalian cells using a lipid-based transfection reagent. After a transient expression period, the recombinant antibodies against BAK1 are purified from the culture medium. This BAK1 recombinant monoclonal antibody is specifically designed for the detection of human BAK1 protein in ELISA, WB, IHC, FC, and IP experiments.

BAK1 is involved in the control of a number of different types of programmed cell death (PCD), including immunity and development- and defense-related PCD. It has been demonstrated that BAK1 serves as a primary player at the intersection of multiple physiological processes, including the regulation of development, and responses to biotic stresses. The involvement of BAK1 in brassinosteroid (BR) signaling, vascular differentiation, stem elongation, flowering, floral abscission, fertility, and senescence has also been documented.