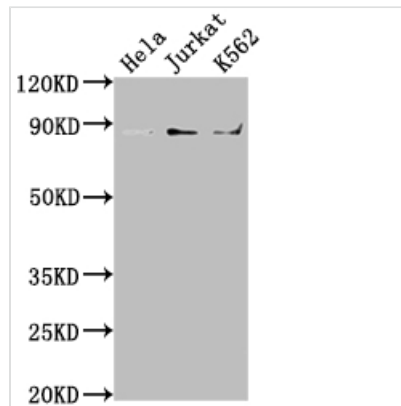




IKBKB Recombinant Monoclonal Antibody

Product Code	CSB-RA261933A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	O14920
Immunogen	A synthesized peptide derived from human IKK beta
Species Reactivity	Human
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	<p>Serine kinase that plays an essential role in the NF-kappa-B signaling pathway which is activated by multiple stimuli such as inflammatory cytokines, bacterial or viral products, DNA damages or other cellular stresses. Acts as part of the canonical IKK complex in the conventional pathway of NF-kappa-B activation and phosphorylates inhibitors of NF-kappa-B on 2 critical serine residues. These modifications allow polyubiquitination of the inhibitors and subsequent degradation by the proteasome. In turn, free NF-kappa-B is translocated into the nucleus and activates the transcription of hundreds of genes involved in immune response, growth control, or protection against apoptosis. In addition to the NF-kappa-B inhibitors, phosphorylates several other components of the signaling pathway including NEMO/IKBKG, NF-kappa-B subunits RELA and NFKB1, as well as IKK-related kinases TBK1 and IKBKE. IKK-related kinase phosphorylations may prevent the overproduction of inflammatory mediators since they exert a negative regulation on canonical IKKs. Phosphorylates FOXO3, mediating the TNF-dependent inactivation of this pro-apoptotic transcription factor. Also phosphorylates other substrates including NCOA3, BCL10 and IRS1. Within the nucleus, acts as an adapter protein for NFKBIA degradation in UV-induced NF-kappa-B activation.</p>
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	Epigenetics and Nuclear Signaling; Cardiovascular; Immunology; Signal transduction
Gene Names	IKBKB
Clone No.	5D12
Image	


Western Blot

Positive WB detected in: HeLa whole cell lysate, Jurkat whole cell lysate, K562 whole cell lysate

All lanes: IKBKB antibody at 1:2000

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 87, 86, 30, 80 kDa

Observed band size: 87 kDa

Description

The IKBKB recombinant monoclonal antibody is developed using protein and DNA recombinant technology. Initially, a synthesized peptide derived from human IKBKB is used to immunize mice. After some time, the mice's spleen is removed under sterile conditions, and the cDNA synthesized from the RNA reverse transcription of the spleen cells' total RNA is used as a template to amplify the IKBKB antibody gene through PCR. Subsequently, the IKBKB antibody gene is inserted into a vector, which is then transfected into host cells for further culturing. The IKBKB recombinant monoclonal antibody is purified from the host cells' supernatant via affinity chromatography and subjected to rigorous testing. It can be used for detecting human IKBKB protein in ELISA and WB experimental techniques.

The IKBKB protein, also known as IKK β , is a protein kinase that plays a key role in the regulation of the NF κ B signaling pathway. This pathway is involved in the regulation of immune responses, inflammation, and cell survival. Dysregulation of the NF κ B pathway has been implicated in various diseases, including cancer and autoimmune disorders. In addition to its role in the NF κ B pathway, IKBKB also has other functions in cells, such as regulation of the cell cycle and modulation of the Wnt signaling pathway.