

Anti-IKK beta IKBKB Rabbit Monoclonal Antibody
Catalog # ABO13927

Specification

Anti-IKK beta IKBKB Rabbit Monoclonal Antibody - Product Information

Application	WB, IP
Primary Accession	O14920
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Human, Mouse
Clonality	Monoclonal
Format	Liquid

Description

Anti-IKK beta IKBKB Rabbit Monoclonal Antibody . Tested in WB, IP applications. This antibody reacts with Human, Mouse.

Anti-IKK beta IKBKB Rabbit Monoclonal Antibody - Additional Information

Gene ID 3551

Other Names

Inhibitor of nuclear factor kappa-B kinase subunit beta, I-kappa-B-kinase beta, IKK-B, IKK-beta, IKBKB, 2.7.11.10, I-kappa-B kinase 2, IKK-2, IKK2, Nuclear factor NF-kappa-B inhibitor kinase beta, NFKB1KB, Serine/threonine protein kinase IKBKB, 2.7.11.1, IKBKB, IKKB

Calculated MW

86564 MW KDa

Application Details

WB 1:500-1:2000
IP 1:50

Subcellular Localization

Cytoplasm. Nucleus. Membrane raft. Colocalized with DPP4 in membrane rafts.

Tissue Specificity

Highly expressed in heart, placenta, skeletal muscle, kidney, pancreas, spleen, thymus, prostate, testis and peripheral blood.

Contents

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen

A synthesized peptide derived from human IKK beta

Purification

Affinity-chromatography

Storage

Store at -20°C for one year. For short term

storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Anti-IKK beta IKBKB Rabbit Monoclonal Antibody - Protein Information

Name IKBKB

Synonyms IKKB

Function

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 (PubMed: [20434986](http://www.uniprot.org/citations/20434986), PubMed: [20797629](http://www.uniprot.org/citations/20797629), PubMed: [21138416](http://www.uniprot.org/citations/21138416), PubMed: [30337470](http://www.uniprot.org/citations/30337470), PubMed: [9346484](http://www.uniprot.org/citations/9346484)). Acts as a part of the canonical IKK complex in the conventional pathway of NF-kappa-B activation (PubMed: [9346484](http://www.uniprot.org/citations/9346484)). Phosphorylates inhibitors of NF-kappa-B on 2 critical serine residues (PubMed: [20434986](http://www.uniprot.org/citations/20434986), PubMed: [20797629](http://www.uniprot.org/citations/20797629), PubMed: [21138416](http://www.uniprot.org/citations/21138416), PubMed: [9346484](http://www.uniprot.org/citations/9346484)). These modifications allow polyubiquitination of the inhibitors and subsequent degradation by the proteasome (PubMed: [20434986](http://www.uniprot.org/citations/20434986), PubMed: [20797629](http://www.uniprot.org/citations/20797629), PubMed: [21138416](http://www.uniprot.org/citations/21138416), PubMed: [9346484](http://www.uniprot.org/citations/9346484)). 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 (PubMed: [20434986](http://www.uniprot.org/citations/20434986), PubMed: [20797629](http://www.uniprot.org/citations/20797629), PubMed: [21138416](http://www.uniprot.org/citations/21138416), PubMed: [9346484](http://www.uniprot.org/citations/9346484)). 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 (PubMed: [11297557](http://www.uniprot.org/citations/11297557), PubMed: [14673179](http://www.uniprot.org/citations/14673179), PubMed: [20410276](http://www.uniprot.org/citations/20410276), PubMed: [21138416](http://www.uniprot.org/citations/21138416)). IKK-related kinase phosphorylations may prevent the overproduction of inflammatory mediators since they exert a negative regulation on canonical IKKs (PubMed: [11297557](http://www.uniprot.org/citations/11297557), PubMed: [20410276](http://www.uniprot.org/citations/20410276), PubMed: [21138416](http://www.uniprot.org/citations/21138416)). Phosphorylates FOXO3, mediating the TNF-dependent inactivation of this pro-apoptotic transcription factor (PubMed: [15084260](http://www.uniprot.org/citations/15084260)). Also phosphorylates other substrates including NAA10, NCOA3, BCL10 and IRS1 (PubMed: [17213322](http://www.uniprot.org/citations/17213322), PubMed: [19716809](http://www.uniprot.org/citations/19716809)). Phosphorylates RIPK1 at 'Ser-25' which represses its kinase activity and consequently prevents TNF-mediated RIPK1-dependent cell death (By similarity). Phosphorylates the C-terminus of IRF5, stimulating IRF5 homodimerization and translocation into

the nucleus (PubMed: [25326418](http://www.uniprot.org/citations/25326418)). Following bacterial lipopolysaccharide (LPS)-induced TLR4 endocytosis, phosphorylates STAT1 at 'Thr-749' which restricts interferon signaling and anti-inflammatory responses and promotes innate inflammatory responses (PubMed: [38621137](http://www.uniprot.org/citations/38621137)). IKBKB-mediated phosphorylation of STAT1 at 'Thr-749' promotes binding of STAT1 to the ARID5A promoter, resulting in transcriptional activation of ARID5A and subsequent ARID5A-mediated stabilization of IL6 (PubMed: [32209697](http://www.uniprot.org/citations/32209697)). It also promotes binding of STAT1 to the IL12B promoter and activation of IL12B transcription (PubMed: [32209697](http://www.uniprot.org/citations/32209697)).

Cellular Location

Cytoplasm. Nucleus. Membrane raft. Note=Colocalized with DPP4 in membrane rafts.

Tissue Location

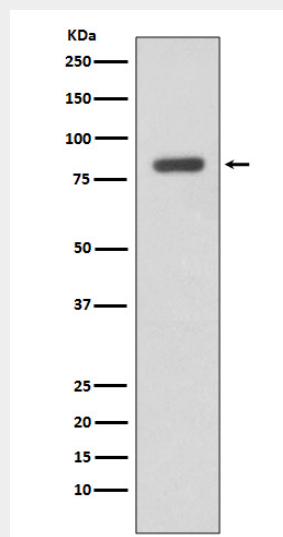
Highly expressed in heart, placenta, skeletal muscle, kidney, pancreas, spleen, thymus, prostate, testis and peripheral blood

Anti-IKK beta IKBKB Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-IKK beta IKBKB Rabbit Monoclonal Antibody - Images



Western blot analysis of IKK beta expression in Daudi cell lysate.