

IKK beta Antibody
Rabbit mAb
Catalog # AP91038**Specification****IKK beta Antibody - Product Information**

Application	WB, IHC, ICC
Primary Accession	O14920
Reactivity	Rat
Clonality	Monoclonal
Other Names	
IKK-B; IKK-beta; IKK2; IKKB; IkBKB; NFKBIKB; kinase IKK-beta;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	86564 Da

IKK beta Antibody - Additional Information

Dilution	WB~~1:1000 IHC~~1:100~500 ICC~~N/A
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human IKK beta
Description	IKK-beta is a kinase of the IKK family. Phosphorylates inhibitors of NF-kappa-B thus leading to the dissociation of the inhibitor/NF-kappa-B complex and ultimately the degradation of the inhibitor. Preferentially found as a heterodimer with IKK-alpha but also as an homodimer.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

IKK beta 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)

target="_blank">>20797629, PubMed:>21138416, PubMed:>30337470, PubMed:>9346484). Acts as a part of the canonical IKK complex in the conventional pathway of NF-kappa-B activation (PubMed:>9346484). Phosphorylates inhibitors of NF-kappa-B on 2 critical serine residues (PubMed:>20434986, PubMed:>20797629, PubMed:>21138416, PubMed:>9346484). These modifications allow polyubiquitination of the inhibitors and subsequent degradation by the proteasome (PubMed:>20434986, PubMed:>20797629, PubMed:>21138416, PubMed:>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, PubMed:>20797629, PubMed:>21138416, PubMed:>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, PubMed:>14673179, PubMed:>20410276, PubMed:>21138416). IKK-related kinase phosphorylations may prevent the overproduction of inflammatory mediators since they exert a negative regulation on canonical IKKs (PubMed:>11297557, PubMed:>20410276, PubMed:>21138416). Phosphorylates FOXO3, mediating the TNF-dependent inactivation of this pro-apoptotic transcription factor (PubMed:>15084260). Also phosphorylates other substrates including NAA10, NCOA3, BCL10 and IRS1 (PubMed:>17213322, PubMed:>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). 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). 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). It also promotes binding of STAT1 to the IL12B promoter and activation of IL12B transcription (PubMed:>32209697).

Cellular Location

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

Tissue Location

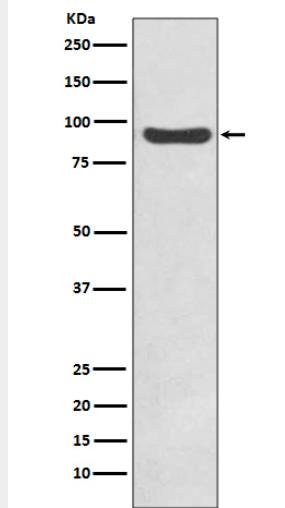
Highly expressed in heart, placenta, skeletal muscle, kidney, pancreas, spleen, thymus, prostate, testis and peripheral blood

IKK beta 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](#)

IKK beta Antibody - Images



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