

ARG56247 anti-IKK Epsilon antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes IKK Epsilon
Tested Reactivity	Hu, Ms, Rat
Tested Application	ICC/IF, IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	IKK Epsilon
Species	Human
Immunogen	Recombinant protein of Human IKK Epsilon
Conjugation	Un-conjugated
Alternate Names	IkBKE; IKK-epsilon; EC 2.7.11.10; I-kappa-B kinase epsilon; IKKE; IKK-E; Inhibitor of nuclear factor kappa-B kinase subunit epsilon; IKK-i; Inducible I kappa-B kinase; IKKI

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:200
	IHC-P	1:50 - 1:200
	WB	1:500 - 1:2000

Application Note * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Positive Control Mouse liver

Properties

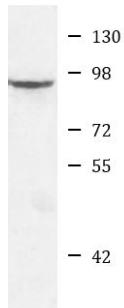
Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS (pH 7.3), 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links	GeneID: 56489 Mouse GeneID: 9641 Human Swiss-port # Q14164 Human Swiss-port # Q9R0T8 Mouse
Gene Symbol	IKBKE
Gene Full Name	inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase epsilon
Background	IKBKE is a noncanonical I-kappa-B (see MIM 164008) kinase (IKK) that is essential for regulating antiviral signaling pathways. IKBKE has also been identified as a breast cancer (MIM 114480) oncogene and is amplified and overexpressed in over 30% of breast carcinomas and breast cancer cell lines (Hutti et al., 2009 [PubMed 19481526]).[supplied by OMIM, Oct 2009]
Function	Serine/threonine kinase that plays an essential role in regulating inflammatory responses to viral infection, through the activation of the type I IFN, NF-kappa-B and STAT signaling. Also involved in TNFA and inflammatory cytokines, like Interleukin-1, signaling. Following activation of viral RNA sensors, such as RIG-I-like receptors, associates with DDX3X and phosphorylates interferon regulatory factors (IRFs), IRF3 and IRF7, as well as DDX3X. This activity allows subsequent homodimerization and nuclear translocation of the IRF3 leading to transcriptional activation of pro-inflammatory and antiviral genes including IFNB. In order to establish such an antiviral state, IKBKE forms several different complexes whose composition depends on the type of cell and cellular stimuli. Thus, several scaffolding molecules including IPS1/MAVS, TANK, AZI2/NAP1 or TBKBP1/SINTBAD can be recruited to the IKBKE-containing-complexes. Activated by polyubiquitination in response to TNFA and interleukin-1, regulates the NF-kappa-B signaling pathway through, at least, the phosphorylation of CYLD. 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. In addition, is also required for the induction of a subset of ISGs which displays antiviral activity, may be through the phosphorylation of STAT1 at 'Ser-708'. Phosphorylation of STAT1 at 'Ser-708' seems also to promote the assembly and DNA binding of ISGF3 (STAT1:STAT2:IRF9) complexes compared to GAF (STAT1:STAT1) complexes, in this way regulating the balance between type I and type II IFN responses. Protects cells against DNA damage-induced cell death. Also plays an important role in energy balance regulation by sustaining a state of chronic, low-grade inflammation in obesity, which leads to a negative impact on insulin sensitivity. Phosphorylates AKT1. [UniProt]
Calculated Mw	80 kDa
PTM	Autophosphorylated and phosphorylated by IKBKB/IKKB. Phosphorylation at Ser-172 is enhanced by the interaction with DDX3X. Phosphorylated at Thr-501 upon IFN activation. Sumoylation by TOPORS upon DNA damage is required for protection of cells against DNA damage-induced cell death. Desumoylated by SENP1. 'Lys-63'-linked polyubiquitinated at Lys-30 and Lys-401 by TRAF2:BIRC2 and TRAF2:BIRC3 complexes. Ubiquitination is induced by LPS, TNFA and interleukin-1 and required for full kinase activity and NF-kappa-B pathway activation.

Images

ARG56247 anti-IKK Epsilon antibody WB image



Western blot: Mouse liver lysate stained with ARG56247 anti-IKK Epsilon antibody.

Mouse liver
