

ARG40725 anti-IkB alpha phospho (Tyr42) antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes IkB alpha phospho (Tyr42)
Tested Reactivity	Hu
Predict Reactivity	Ms, Rat
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	IkB alpha
Species	Human
Immunogen	KLH-conjugated phosphospecific peptide around Tyr42 of Human IkB alpha.
Conjugation	Un-conjugated
Alternate Names	NFKB1; I-kappa-B-alpha; IkB-alpha; NF-kappa-B inhibitor alpha; Major histocompatibility complex enhancer-binding protein MAD3; IKBA; IkappaBalpha; MAD-3

Application Instructions

Application table	Application	Dilution
	WB	1:1000

Application Note
WB: Antibody is suggested to be diluted in 5% skimmed milk/Tris buffer with 0.04% Tween20 and incubated for 1 hour at room temperature.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

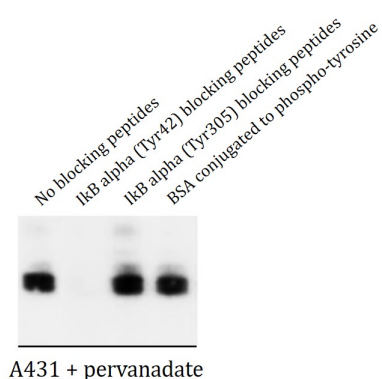
Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS, 0.05% Sodium azide, 50% Glycerol and 1 mg/ml BSA.
Preservative	0.05% Sodium azide
Stabilizer	50% Glycerol and 1 mg/ml BSA
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

Gene Symbol	NFKBIA
Gene Full Name	nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
Background	This gene encodes a member of the NF-kappa-B inhibitor family, which contain multiple ankrin repeat domains. The encoded protein interacts with REL dimers to inhibit NF-kappa-B/REL complexes which are involved in inflammatory responses. The encoded protein moves between the cytoplasm and the nucleus via a nuclear localization signal and CRM1-mediated nuclear export. Mutations in this gene have been found in ectodermal dysplasia anhidrotic with T-cell immunodeficiency autosomal dominant disease. [provided by RefSeq, Aug 2011]
Function	Inhibits the activity of dimeric NF-kappa-B/REL complexes by trapping REL dimers in the cytoplasm through masking of their nuclear localization signals. On cellular stimulation by immune and proinflammatory responses, becomes phosphorylated promoting ubiquitination and degradation, enabling the dimeric RELA to translocate to the nucleus and activate transcription. [UniProt]
Research Area	Cancer antibody; Gene Regulation antibody; Immune System antibody; Signaling Transduction antibody; IκB alpha degradation Study antibody; NF-κB Activation Study antibody
Calculated Mw	36 kDa
PTM	<p>Phosphorylated; disables inhibition of NF-kappa-B DNA-binding activity. Phosphorylation at positions 32 and 36 is prerequisite to recognition by UBE2D3 leading to polyubiquitination and subsequent degradation.</p> <p>Sumoylated; sumoylation requires the presence of the nuclear import signal. Sumoylation blocks ubiquitination and proteasome-mediated degradation of the protein thereby increasing the protein stability.</p> <p>Monoubiquitinated at Lys-21 and/or Lys-22 by UBE2D3. Ubiquitin chain elongation is then performed by CDC34 in cooperation with the SCF(FBXW11) E3 ligase complex, building ubiquitin chains from the UBE2D3-primed NFKBIA-linked ubiquitin. The resulting polyubiquitination leads to protein degradation. Also ubiquitinated by SCF(BTRC) following stimulus-dependent phosphorylation at Ser-32 and Ser-36.</p> <p>Deubiquitinated by porcine reproductive and respiratory syndrome virus Nsp2 protein, which thereby interferes with NFKBIA degradation and impairs subsequent NF-kappa-B activation. [UniProt]</p>
Cellular Localization	Cytoplasm. Nucleus. Note=Shuttles between the nucleus and the cytoplasm by a nuclear localization signal (NLS) and a CRM1-dependent nuclear export. [UniProt]

Images



ARG40725 anti-IκB alpha phospho (Tyr42) antibody WB image

Western blot: A431 cells treated with pervanadate (1 mM) for 30 min. Further treatments: 1) No blocking peptides, 2) IκB alpha (Tyr42) blocking peptides, 3) IκB alpha (Tyr305) blocking peptides and 4) BSA conjugated to phospho-tyrosine. The blots were stained with ARG40725 anti-IκB alpha phospho (Tyr42) antibody.