

## Rabbit anti-Human IKK-gamma Polyclonal Antibody | anti-IKBKG antibody

IKK-gamma Antibody

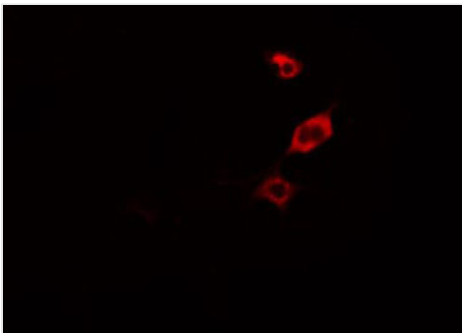
| CATALOG # | HOST   | REACTIVITY | APPLICATIONS                                                 |
|-----------|--------|------------|--------------------------------------------------------------|
| AAA322468 | Rabbit | Human      | ELISA, Immunocytochemistry, Immunofluorescence, Western Blot |

### PRODUCT SYNONYMS

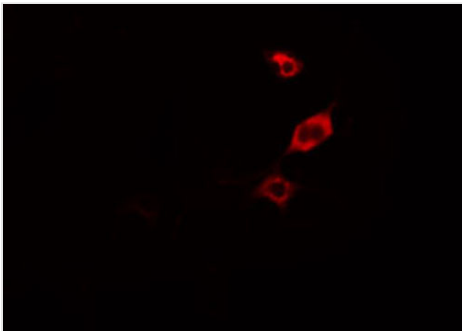
IKK-gamma; Polyclonal Antibody; IKK-gamma Antibody; IκB kinase associated protein 1; IκB kinase subunit gamma; Inhibitor of nuclear factor kappa B kinase subunit gamma; AMCBX1; FIP 3; FIP-3; FIP3; Fip3p; I kappa B kinase gamma; I-kappa-B kinase subunit gamma; IκB kinase gamma subunit; IκB kinase-associated protein 1; Ikbkg; IKKAP1; IKKG; IMD33; Incontinentia pigmenti; Inhibitor of kappa light polypeptide gene enhancer in B cells; kinase gamma; kinase of; gamma; Inhibitor of nuclear factor kappa-B kinase subunit gamma; IP; IP1; IP2; IPD2; NEMO; NEMO\_HUMAN; NF kappa B essential modifier; NF kappa B essential modulator; NF-kappa-B essential modifier; NF-kappa-B essential modulator; ZC2HC9; anti-IKBKG antibody

### PRODUCT SPECIFICATIONS

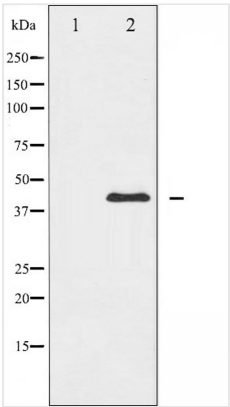
|                                                 |                                                                                                 |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                          |
| Reactivity                                      | Human                                                                                           |
| Clonality                                       | Polyclonal                                                                                      |
| Isotype                                         | IgG                                                                                             |
| Specificity                                     | IKK-gamma antibody detects endogenous levels of total IKK-gamma                                 |
| Purity/Purification                             | The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.   |
| Form/Format                                     | Liquid<br>Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.   |
| Concentration                                   | 1mg/ml (varies by lot)                                                                          |
| Sequence Length                                 | 487                                                                                             |
| Applicable Applications for anti-IKBKG antibody | ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)                    |
| Immunogen                                       | A synthesized peptide derived from human IKK-gamma                                              |
| Subcellular Location                            | Cytoplasm. Nucleus. Sumoylated NEMO accumulates in the nucleus in response to genotoxic stress. |
| Tissue Specificity                              | Heart, brain, placenta, lung, liver, skeletal muscle, kidney and pancreas.                      |
| Predicted Cross Reactivity                      | <b>Pig, Horse, Rabbit</b>                                                                       |
| Similarity                                      | Pig (88%), Horse (89%), Rabbit (88%)                                                            |
| Conjugation                                     | Unconjugated                                                                                    |
| Preparation and Storage                         | Store at -20 degree C. Stable for 12 months from date of receipt.                               |



**IF (Immunofluorescence)**  
AAA322468 staining HeLa cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



**IF (Immunofluorescence)**  
AAA322468 staining 293 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



**WB (Western Blot)**  
Western blot analysis of IKK-gamma expression in Anisomycin treated HepG2 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.

## ADDITIONAL INFORMATION

### Related Product Information for anti-IKBKG antibody

Description: Familial incontinentia pigmenti (IP) is a genodermatosis that segregates as an X-linked dominant disorder and is usually lethal prenatally in males (The International Incontinentia Pigmenti Consortium, 2000 [PubMed 10839543]). In affected females it causes highly variable abnormalities of the skin, hair, nails, teeth, eyes, and central nervous system.

Function: Regulatory subunit of the IKK core complex which 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. Its binding to scaffolding polyubiquitin seems to play a role in IKK activation by multiple signaling receptor pathways. However, the specific type of polyubiquitin recognized upon cell stimulation (either 'Lys-63'-linked or linear polyubiquitin) and its functional importance is reported conflictingly. Also considered to be a mediator for TAX activation of NF-kappa-B. Could be implicated in NF-kappa-B-mediated protection from cytokine toxicity. Essential for viral activation of IRF3. Involved in TLR3-and IFIH1-mediated antiviral innate response; this function requires 'Lys-27'-linked polyubiquitination.

Subunit Structure: Homodimer; disulfide-linked. Component of the I-kappa-B-kinase (IKK) core complex consisting of CHUK, IKBKB and IKBKG; probably four alpha/CHUK-beta/IKBKB dimers are associated with four gamma/IKBKG subunits. The IKK core complex seems to associate with regulatory or adapter proteins to form a IKK-signalosome holo-complex. The IKK complex associates with TERF2IP/RAP1, leading to promote IKK-mediated phosphorylation of RELA/p65. Part of a complex composed of NCOA2, NCOA3, CHUK/IKKA, IKBKB, IKBKG and CREBBP. Interacts with COPS3, CYLD, NALP2, TRPC4AP and LRDD. Interacts with ATM; the complex is exported from the nucleus. Interacts with TRAF6. Interacts with HTLV-1 Tax oncoprotein; the interaction activates IKBKG. Interacts with IKBKE. Interacts with TANK; the interaction is enhanced by IKBKE and TBK1. Part of a ternary complex consisting of TANK, IKBKB and IKBKG. Interacts with ZFAND5. Interacts with RIPK2. Interacts with TNIP1 and TNFAIP3; TNIP1 facilitates the TNFAIP3-mediated de-ubiquitination of IKBKG. Interacts with TNFAIP3; the interaction is induced by TNF stimulation and by polyubiquitin. Binds polyubiquitin; the interaction is mediated by two domains; reports about the binding to 'Lys-63'-linked and/or linear polyubiquitin, respective binding affinities and stoichiometry are conflicting. Interacts with Shigella flexneri ipah9.8; the interaction promotes TNIP1-dependent 'Lys-27'-linked polyubiquitination of IKBKG which perturbs NF-kappa-B activation during bacterial infection. Interacts with NLRP10. Interacts with TANK; this interaction increases in response to DNA damage (PubMed:25861989). Interacts with USP10; this interaction increases in response to DNA damage (PubMed:25861989). Interacts with ZC3H12A; this interaction increases in response to DNA damage (PubMed:25861989). Interacts with IFIT5; the interaction synergizes the recruitment of IKK to MAP3K7 and enhances IKK phosphorylation (PubMed:26334375). Interacts with TRIM29; this interaction induces IKBKG/NEMO ubiquitination and proteolytic degradation (PubMed:27695001). Interacts with TRIM13; this interaction leads to IKBKG/NEMO ubiquitination (PubMed:25152375).

Post-translational Modifications: Phosphorylation at Ser-68 attenuates aminoterminal homodimerization. Polyubiquitinated on Lys-285 through 'Lys-63'; the ubiquitination is mediated by NOD2 and RIPK2 and probably plays a role in signaling by facilitating interactions with ubiquitin domain-containing proteins and activates the NF-kappa-B pathway. Polyubiquitinated on Lys-399 through 'Lys-63'; the ubiquitination is mediated by BCL10, MALT1 and TRAF6 and probably plays a role in signaling by facilitating interactions with ubiquitin domain-containing proteins and activates the NF-kappa-B pathway. Monoubiquitinated on Lys-277 and Lys-309; promotes nuclear export. Polyubiquitinated through 'Lys-27' by TRIM23; involved in antiviral innate and inflammatory responses. Linear polyubiquitinated on Lys-111, Lys-143, Lys-226, Lys-246, Lys-264, Lys-277, Lys-285, Lys-292, Lys-302, Lys-309 and Lys-326; the head-to-tail polyubiquitination is mediated by the LUBAC complex and plays a key role in NF-kappa-B activation. Polyubiquitinated on Lys-309 and Lys-321 via 'Lys-27'-linked ubiquitin by Shigella flexneri E3 ubiquitin-protein ligase ipah9.8, leading to its degradation by the proteasome. Deubiquitinated by USP10 in a TANK-dependent and-independent manner, leading to the negative regulation of NF-kappaB signaling upon DNA damage (PubMed:25861989). Sumoylated on Lys-277 and Lys-309 with SUMO1; the modification results in phosphorylation of Ser-85 by ATM leading to a replacement of the sumoylation by mono-ubiquitination on these residues. Neddylated by TRIM40, resulting in stabilization of NFKBIA and down-regulation of NF-kappa-B activity.

Similarity: The leucine-zipper domain and the CCHC NOA-type zinc-finger are essential for polyubiquitin binding and for the activation of IRF3.

## NCBI AND UNIPROT INFORMATION

|                           |                        |
|---------------------------|------------------------|
| NCBI GI #                 | 223671870              |
| NCBI GeneID               | 8517                   |
| NCBI Accession #          | NP_001093326.2         |
| NCBI GenBank Nucleotide # | NM_001099856.4         |
| UniProt Accession #       | Q9Y6K9; Q7LBY6; Q7Z7F1 |

|                                  |                                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------------------------|
| Molecular Weight                 | Observed: 43 kDa<br>Predicted: 49 kDa                                                               |
| NCBI Official Full Name          | NF-kappa-B essential modulator isoform b                                                            |
| NCBI Official Synonym Full Names | inhibitor of nuclear factor kappa B kinase subunit gamma                                            |
| NCBI Official Symbol             | IKBKG                                                                                               |
| NCBI Official Synonym Symbols    | IP; IP1; IP2; FIP3; IKKG; IPD2; NEMO; FIP-3; Fip3p; IMD33; AMCBX1; IKKAP1; ZC2HC9; IKK-gamma        |
| NCBI Protein Information         | NF-kappa-B essential modulator                                                                      |
| UniProt Protein Name             | NF-kappa-B essential modulator                                                                      |
| UniProt Gene Name                | <b>IKBKG</b>                                                                                        |
| UniProt Synonym Gene Names       | FIP3; NEMO; NEMO; IKKAP1; I-kappa-B kinase subunit gamma; IKK-gamma; IKKG; Ikb kinase subunit gamma |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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