ARG54361
anti-RIPK2 / RIP2 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes RIPK2 / RIP2
Tested Reactivity	Hu, Ms
Tested Application	ICC/IF, WB
Specificity	This antibody recognizes human, mouse and rat RIPK2 / RIP2 (60 kDa).
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	RIPK2 / RIP2
Species	Human
Immunogen	Synthetic peptide corresponding to aa. 508-522 of Human RIPK2 / RIP2 (O43353).
Conjugation	Un-conjugated
Alternate Names	RIP-like-interacting CLARP kinase; Receptor-interacting protein 2; CARD-containing interleukin-1 beta-converting enzyme-associated kinase; Receptor-interacting serine/threonine-protein kinase 2; RIP-2; GIG30; EC 2.7.10.2; CARDIAK; RIP2; RICK; CCK; CARD3; EC 2.7.11.1; Tyrosine-protein kinase RIPK2; CARD-containing IL-1 beta ICE-kinase

Application Instructions

Application table

Application	Dilution
ICC/IF	5-10 µg/mL
WB	1 µg/mL

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

Positive Control: A431 and K562

Properties

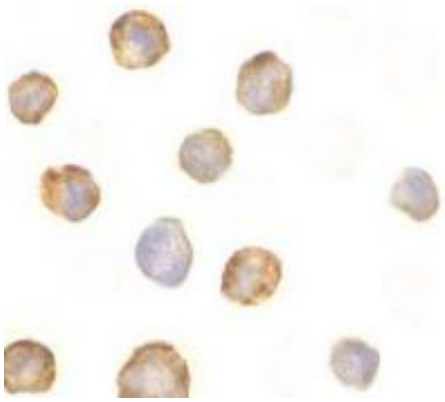
Form	Liquid
Purification	Immunoaffinity chroma-tography
Buffer	PBS (pH 7.4) and 0.02% Sodium azide
Preservative	0.02% Sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free 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

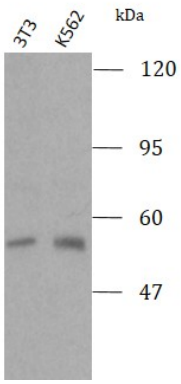
Database links	GeneID: 192656 Mouse GeneID: 8767 Human Swiss-port # O43353 Human Swiss-port # P58801 Mouse
Gene Symbol	RIPK2
Gene Full Name	receptor-interacting serine-threonine kinase 2
Background	A CARD-containing serine/threonine kinase has been identified and designated RICK/RIP2/CARDIAK for RIP-like interacting CLARP kinase, receptor interacting protein-2, and CARD-containing ICE associated kinase, respectively. RICK contains an N-terminal kinase catalytic domain and a C-terminal CARD domain. Overexpression of RICK induces apoptosis and activates NF- B and JNK. RICK interacts with members of the TRAF family, CLARP, and caspase-1. RICK regulates TNF and Fas induced-apoptosis and is involved in the generation of the proinflammatory cytokine IL-1. The mRNA of RICK is expressed in many human tissues.
Function	Serine/threonine/tyrosine kinase that plays an essential role in modulation of innate and adaptive immune responses. Upon stimulation by bacterial peptidoglycans, NOD1 and NOD2 are activated, oligomerize and recruit RIPK2 through CARD-CARD domains. Contributes to the tyrosine phosphorylation of the guanine exchange factor ARHGEF2 through Src tyrosine kinase leading to NF-kappaB activation by NOD2. Once recruited, RIPK2 autophosphorylates and undergoes 'Lys-63'-linked polyubiquitination by E3 ubiquitin ligases XIAP, BIRC2 and BIRC3. The polyubiquitinated protein mediates the recruitment of MAP3K7/TAK1 to IKBKG/NEMO and induces 'Lys-63'-linked polyubiquitination of IKBKG/NEMO and subsequent activation of IKBKB/IKKB. In turn, NF-kappa-B is released from NF-kappa-B inhibitors and translocates into the nucleus where it activates the transcription of hundreds of genes involved in immune response, growth control, or protection against apoptosis. Plays also a role during engagement of the T-cell receptor (TCR) in promoting BCL10 phosphorylation and subsequent NF-kappa-B activation. [UniProt]
Research Area	Cancer antibody; Cell Biology and Cellular Response antibody; Cell Death antibody; Immune System antibody; Metabolism antibody; Signaling Transduction antibody
Calculated Mw	61 kDa
PTM	Autophosphorylated. Autophosphorylation at Tyr-474 is necessary for effective NOD2 signaling. Phosphorylated. Phosphorylation at Tyr-381 by Src kinase CSK occurs in a ARHGEF2-dependent manner and is required for NOD2-dependent innate immune activation. Ubiquitinated on Lys-209; undergoes 'Lys-63'-linked polyubiquitination catalyzed by ITCH. Polyubiquitinated with 'Lys-48' and 'Lys-63'-linked chains by BIRC2/c-IAP1 and BIRC3/c-IAP2, leading to activation of NF-kappa-B. Also undergoes 'Met-1'-linked polyubiquitination; the head-to-tail linear polyubiquitination is mediated by the LUBAC complex in response to NOD2 stimulation. Linear polyubiquitination is restricted by FAM105B/otulin, probably to limit NOD2-dependent proinflammatory signaling activation of NF-kappa-B.

Images



ARG54361 anti-RIPK2 / RIP2 antibody ICC/IF image

K562 cells stained with ARG54361 anti-RIPK2 / RIP2 antibody at 5 µg/ml dilution.



ARG54361 anti-RIPK2 / RIP2 antibody WB image

Western blot: 3T3 and K562 stained with ARG54361 anti-RIPK2 / RIP2 antibody at 0.5 µg/ml dilution.