

Rabbit anti-Human, mouse PKR (PRKR) Polyclonal Antibody | anti-EIF2AK2 antibody

PKR (PRKR) Antibody (N-term)

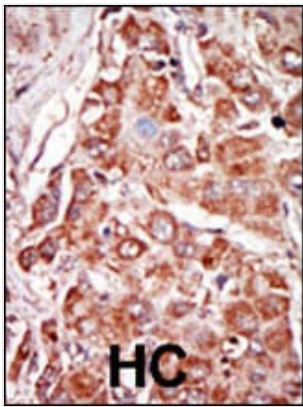
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA287352	Rabbit	Human, mouse	Immunohistochemistry, ELISA, Western Blot

PRODUCT SYNONYMS

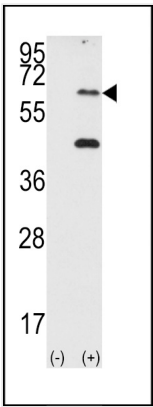
PKR (PRKR); Polyclonal Antibody; PKR (PRKR) Antibody (N-term); Interferon-induced; double-stranded RNA-activated protein kinase; Eukaryotic translation initiation factor 2-alpha kinase 2; eIF-2A protein kinase 2; Interferon-inducible RNA-dependent protein kinase; P1/eIF-2A protein kinase; Protein kinase RNA-activated; PKR; Protein kinase R; Tyrosine-protein kinase EIF2AK2; p68 kinase; EIF2AK2; PRKR; anti-EIF2AK2 antibody

PRODUCT SPECIFICATIONS

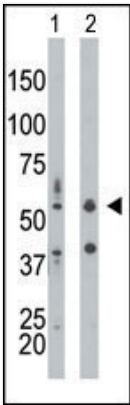
Host	Rabbit
Reactivity	Human, mouse
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This PKR (PRKR) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 11-42 amino acids from the N-terminal region of human PKR (PRKR).
Purity/Purification	Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Concentration	Vial Concentration: 2 (varies by lot)
Sequence Positions	11-42
Sequence Length	510
Applicable Applications for anti-EIF2AK2 antibody	IHC (Immunohistochemistry), ELISA, WB (Western Blot)
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.



IHC (Immunohistochemisry)
Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



WB (Western Blot)
Western blot analysis of EIF2AK2 (arrow) using PRKR Antibody (N-term). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the EIF2AK2 gene (Lane 2) (Origene Technologies).



WB (Western Blot)
The anti-PRKR Pab is used in Western blot to detect PRKR in mouse liver tissue lysate (Lane 1) and HepG2 cell lysate (Lane 2).

ADDITIONAL INFORMATION

Related Product Information for anti-EIF2AK2 antibody	Interferon-induced, double-stranded RNA-activated protein kinase (PRKR) is a serine-threonine kinase. Activation by dsRNAs leads to autophosphorylation of PRKR and allows the kinase to phosphorylate its natural substrate, the alpha subunit of eukaryotic protein synthesis initiation factor-2 (EIF2-alpha), leading to the inhibition of protein synthesis. Human gamma-interferon (IFNG) mRNA exploits localized activation of PRKR in the cell to regulate its own translation. IFNG mRNA activates PRKR through a pseudoknot in its 5-prime untranslated region. The HCV envelope protein E2 contains a sequence identical with phosphorylation sites of the interferon-inducible protein kinase PRKR and the translation initiation factor EIF2-alpha, a target of PRKR. E2 inhibits the kinase activity of PRKR and blocks its inhibitory effect on protein synthesis and cell growth, which provides one mechanism by which HCV may circumvent the antiviral effect of interferon. PRKR, which is involved in TLR signaling and mediates apoptosis in fibroblasts in response to viral infection and inflammatory cytokines, also activates IKK and NFkB, thereby suppressing apoptosis. Apoptosis induced by live pathogenic gram-positive and gram-negative bacteria requirs both TLR4 and PRKR, possibly representing a major mechanism for pathogenic bacteria that use specific virulence factors to avoid detection and destruction by the innate immune system. Roles for PRKR activation in Huntington disease and Fanconi anemia have also been suggested.
Product Categories/Family for anti-EIF2AK2 antibody	Signal Transduction; Autophagy
References	Peel, A.L., et al., Neurobiol. Dis. 14(1):52-62 (2003). Pang, Q., et al., J. Biol. Chem. 277(51):49638-49643 (2002). Kim, S.H., et al., Oncogene 21(57):8741-8748 (2002). Takizawa, T., et al., Eur. J. Biochem. 269(24):6126-6132 (2002). Peters, G.A., et al., J. Virol. 76(21):11054-11064 (2002).

NCBI AND UNIPROT INFORMATION

NCBI GI #	208431827
NCBI GeneID	5610
NCBI Accession #	NP_001129123.1; NP_001129124.1; NP_002750.1
NCBI GenBank Nucleotide #	NM_001135651.2
UniProt Accession #	P19525; Q52M43; Q7Z6F6; Q9UIR4; A8K3P0; D6W584; E9PC80
Molecular Weight	62094
NCBI Official Full Name	interferon-induced, double-stranded RNA-activated protein kinase isoform a
NCBI Official Synonym Full Names	eukaryotic translation initiation factor 2-alpha kinase 2
NCBI Official Symbol	EIF2AK2
NCBI Official Synonym Symbols	PKR; PRKR; EIF2AK1; PPP1R83
NCBI Protein Information	interferon-induced, double-stranded RNA-activated protein kinase
UniProt Protein Name	Interferon-induced, double-stranded RNA-activated protein kinase
UniProt Gene Name	EIF2AK2
UniProt Synonym Gene Names	PKR; PRKR; eIF-2A protein kinase 2; PKR; Protein kinase R
UniProt Entry Name	E2AK2_HUMAN

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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Online datasheet: <https://stage.aaabiotech.com/polyclonal/pkr-prkr-antibody-immunohistochemistry-western-blot-elisa/287352>