Datasheet for ABIN392779

anti-EIF2AK2 antibody (C-Term)

3 Images

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Overview

Quantity:	400 µL
Target:	EIF2AK2
Binding Specificity:	AA 519-550, C-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This EIF2AK2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	This PKR (PRKR) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 519-550 amino acids from the C-terminal region of human PKR (PRKR).
Clone:	RB5284
Isotype:	Ig Fraction
Purification:	This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Target Details

Target:	EIF2AK2
Alternative Name:	PKR (PRKR) (EIF2AK2 Products)

Target Details

Background:	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.
Molecular Weight:	62094
Gene ID:	5610
NCBI Accession:	NP_001129123, NP_001129124, NP_002750
UniProt:	P19525
Pathways:	DNA Damage Repair, ER-Nucleus Signaling, Hepatitis C

Application Details

Application Notes:	WB: 1:1000. WB: 1:1000. IHC-P: 1:50~100
Restrictions:	For Research Use only

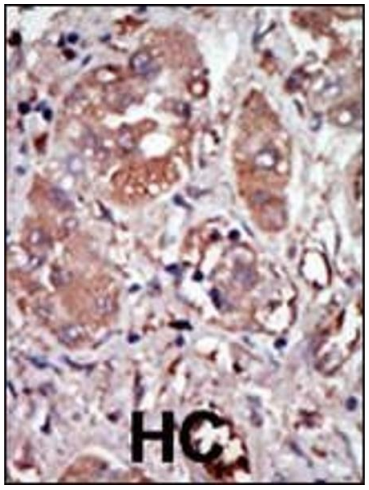
Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

Handling

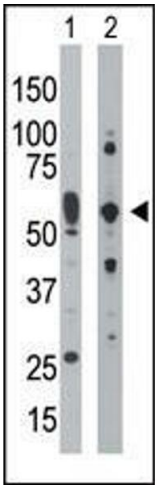
	should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Maintain refrigerated at 2-8 °C for up to 6 months. For long term storage store at -20 °C in small aliquots to prevent freeze-thaw cycles.
Expiry Date:	6 months

Images



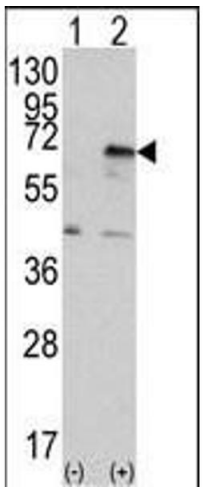
Immunohistochemistry (Paraffin-embedded Sections)

Image 1. 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.



Western Blotting

Image 2. The anti-PRKR Pab (ABIN392779 and ABIN2837995) is used in Western blot to detect PRKR in mouse uterus tissue lysate (Lane 1) and HepG2 cell lysate (Lane 2).



Western Blotting

Image 3. Western blot analysis of EIF2AK2 (arrow) using PRKR Antibody (C-term) (ABIN392779 and ABIN2837995). 293 cell lysates (2 µg/lane) either nontransfected (Lane 1) or transiently transfected with the EIF2AK2 gene (Lane 2) (Origene Technologies).