

Datasheet for 600-401-DP7**PKR Antibody****Overview**

Description:	Anti-PKR (RABBIT) Antibody - 600-401-DP7
Item No.:	600-401-DP7
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	The interferon-inducible, double-stranded RNA (dsRNA)-dependent protein kinase PKR is a member of the eukaryotic initiation factor-2 alpha (eIF2-alpha) kinase family, possessing serine-threonine kinase activity and two dsRNA-binding motifs that acts as part of the innate immune system. Upon binding dsRNA, PKR undergoes a conformational change leading to its activation and its phosphorylation of the translation factor eIF2, resulting in a general shutdown of protein synthesis and induction of apoptosis through upregulation of caspase-8 and capsase-9 activity in order to prevent the production of more viruses. To evade the antiviral effects of PKR, viruses have evolved multiple mechanisms, such as the inhibition of PKR by the non-structural protein (NS1) of the influenza virus. More recently, PKR has been implicated in several neurodegenerative diseases including Alzheimer, Huntington, and amyotrophic lateral sclerosis.
Synonyms:	PKR Antibody, PKR, PRKR, EIF2AK1, PKR, Interferon-induced, double-stranded RNA-activated protein kinase, Eukaryotic translation initiation factor 2-alpha kinase 2, eIF-2A protein kinase 2
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	EIF2AK2
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-PKR antibody was prepared from whole rabbit serum produced by repeated immunizations with a peptide corresponding to 14 amino acids near the C-terminus of human PKR. The immunogen is located within the last 50 amino acids of PKR.
Purity/Specificity:	Anti-PKR Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with PKR from other sources has not been determined.
Relevant Links:	• UniProtKB - P19525 • GeneID - 5610 • NCBI - AAP57628

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-PKR Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry, and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 62 kDa in Western Blots of specific cell lysates and tissues. Positive Controls used A431 Cells, Daudi Cells, THP-1 Cells, and Rat Lung Tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000-1:20,000
IF:	20 µg/mL
IHC:	2.5-5 µg/mL
WB:	0.5-1 µg/mL

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

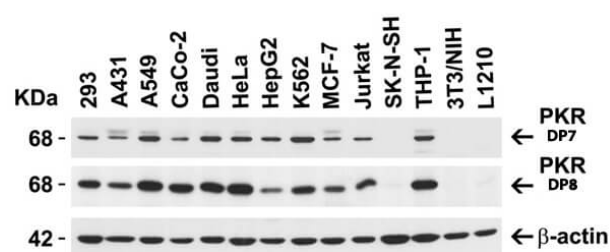
Shipping & Handling

Shipping Condition:	Dry Ice
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Storage Condition: Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

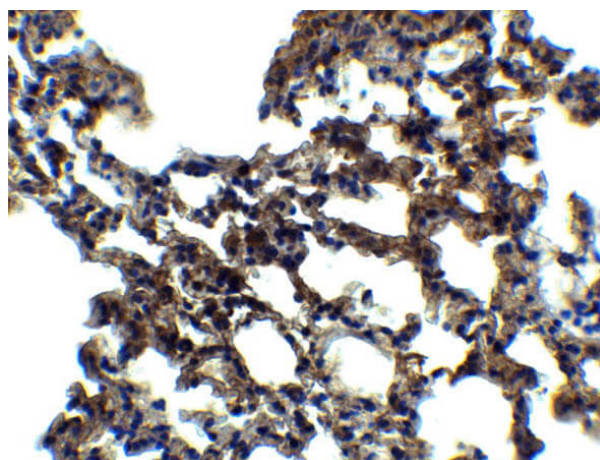
Expiration: Expiration date is one (1) year from date of receipt.

Images



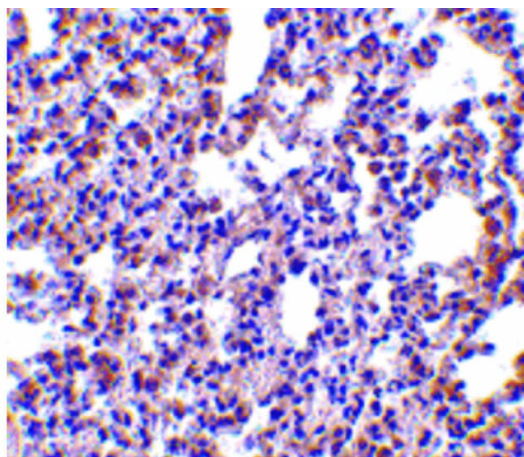
Western Blot

Western Blot of Anti-PKR Antibody. Loading: 15 µg of lysates per lane. Primary Antibodies: PKR (p/n 600-401-DP7) (1 µg/mL), PKR (p/n 600-401-DP8) (1 µg/mL), and beta-actin (1 µg/mL), 1hr at RT in 5% NFDm/TBST. Secondary Antibody: Goat anti-rabbit IgG HRP conjugate at 1:10,000. Expect: ~62kDa.

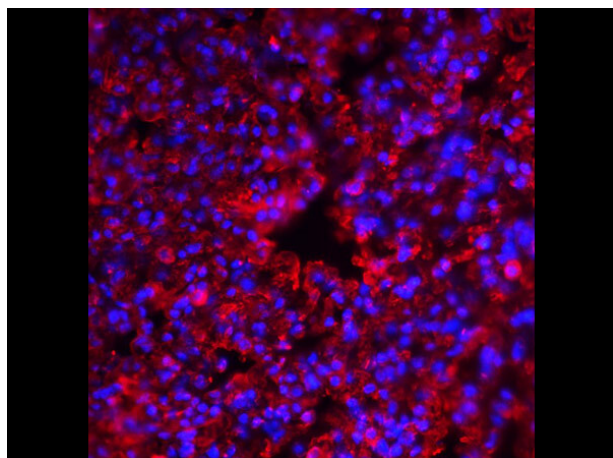


Immunohistochemistry

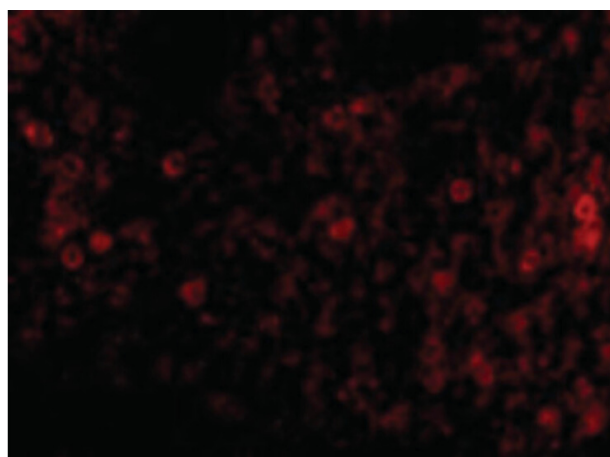
Immunohistochemistry of Rabbit Anti-PKR Antibody. Tissue: Mouse Lung. Fixation: paraffin-embedded formaldehyde and blocked with 10% serum for 1 h at RT. Antigen retrieval: heat mediation with a citrate buffer (pH6). Primary Antibody: anti-PKR antibody at 5µg/ml overnight at 4°C. Secondary Antibody: goat anti-rabbit IgG H&L (HRP) at 1/250. Counter stained with Hematoxylin.

**Immunohistochemistry**

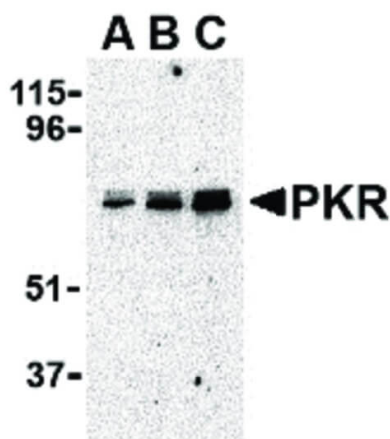
Immunohistochemistry of PKR antibody. Tissue: rat lung tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: PKR antibody at 2.5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: PKR is nuclear and cytoplasmic. Staining: PKR is stained with toluidine blue.

**Immunofluorescence Microscopy**

Immunofluorescence of Rabbit Anti-PKR Antibody. Tissue: Mouse Lung. Fixation: 4% paraformaldehyde-fixed Primary Antibody: PKR at 20µg/mL, Secondary Antibody: goat anti-rabbit IgG antibody at 1/500 dilution (red) and DAPI staining (blue).

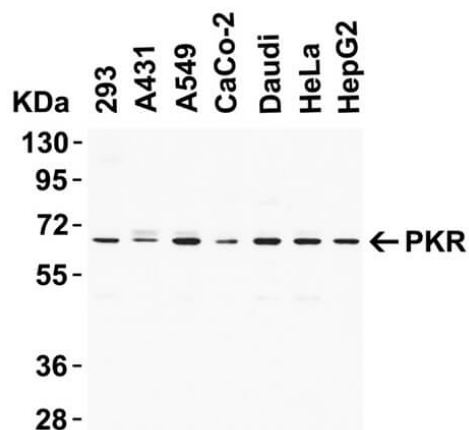
**Immunofluorescence Microscopy**

Immunofluorescence Microscopy of PKR antibody. Cell Type: rat lung cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: PKR antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: PKR is nuclear and cytoplasmic. Staining: PKR as red fluorescent signal.



Western Blot

Western Blot of PKR antibody in A431 whole cell lysate.
 Lane A: PKR antibody at 0.5 µg/mL. Lane B: PKR antibody at 1 µg/mL. Lane C: PKR antibody at 2 µg/mL. Load: 35 µg per lane. Primary antibody: PKR antibody at designated concentrations for overnight at 4°C. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C.
 Predicted/Observed size: 62 kDa, 72 kDa for PKR.



Western Blot

Western Blot of Rabbit Anti-PKR Antibody. Lysates: Human Cell Lines. Loading: 15µg of lysates per lane. Primary Antibody: PKR (1µg/mL), 1hr at RT in 5% NFDM/TBST. Secondary Antibody: Goat anti-rabbit IgG HRP conjugate at 1:10,000. Expect: ~62kDa.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.