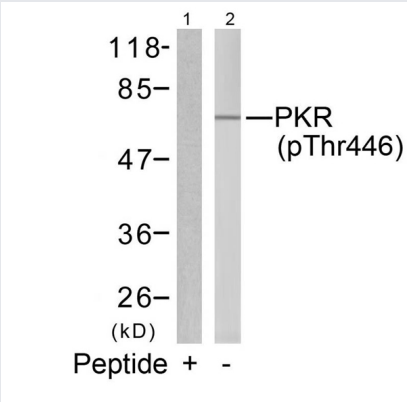
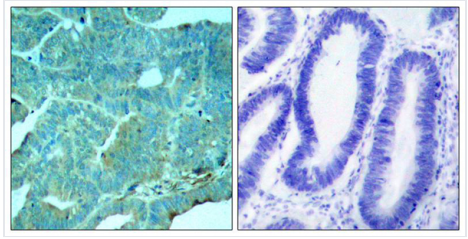
PKR Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

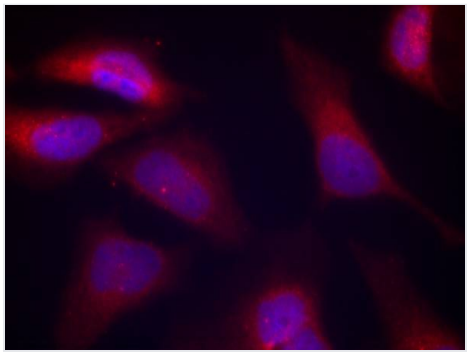
Product Name	PKR, Polyclonal Antibody
Full Product Name	PKR (Phospho-Thr446) Antibody
Product Gene Name	anti-PKR antibody
Product Synonym Names	ADRB2; E2AK2; EIF2AK2; EIF2aK; PRKR
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied at 1.0mg/mL in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Antibodies were produced by immunizing rabbits with synthetic phosphopeptide and KLH conjugates. Antibodies were purified by affinity-chromatography using epitope-specific phosphopeptide. Non-phospho specific antibodies were removed by chromatogramphy usi
Concentration	1.0 mg/ml (lot specific)
Specificity	The antibody detects endogenous level of PKR only when phosphorylated at threonine 446.
Preparation and Storage	Store at -20 degree C for long term preservation (recommended). Store at 4 degree C for short term use.
Molecular Weight	57,391 Da
OMIM	176871
3D Structure	ModBase 3D Structure for P19525
Immunogen Type	Peptide-KLH
Immunogen Description	Peptide sequence around phosphorylation site of threonine 446 (K-R-T(p)-R-S) derived from Human PKR.
Modification	Phospho-Thr446
Target Name	PKR
Product Categories/Family for anti-PKR antibody	Phospho-specific Ab
Applications Tested/Suitable for anti-PKR antibody	Western Blot (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)
Application Notes for anti-PKR antibody	Western blotting: 1:500~1:1000 Immunohistochemistry: 1:50~1:100 Immunofluorescence: 1:100~1:200
Related Product Information for anti-PKR antibody	Following activation by double-stranded RNA in the presence of ATP, the kinase becomes autophosphorylated and can catalyze the phosphorylation of the translation initiation factor EIF2S1, which leads to an inhibition of the initiation of protein synthesis. Double-stranded RNA is generated during the course of a viral infection.
Other Notes	Small volumes of anti-PKR antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PKR purchase	MBS9412822 is an antibody targeting PKR. Also known as PKR (Phospho-Thr446) Antibody. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-PKR antibody
Western blot analysis of extracts from K562 cells using PKR(Phospho-Thr446) Antibody (Lane 2) and the same antibody preincubated with blocking peptide(Lane1).



Immunohistochemistry (IHC) of anti-PKR antibody
Immunohistochemical analysis of paraffin-embedded human colon carcinoma tissue using PKR(Phospho-Thr446) Antibody (left) or the same antibody preincubated with blocking peptide(right).



Immunofluorescence (IF) of anti-PKR antibody
Immunofluorescence staining of methanol-fixed Hela cells using PKR(Phospho-Thr446) Antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PKR. It may not necessarily be applicable to this product.

NCBI GI #	208431827
NCBI GeneID	5610
NCBI Accession #	NP_001129123.1
UniProt Primary Accession #	P19525
UniProt Secondary Accession #	Q52M43; Q7Z6F6; Q9UIR4; A8K3P0; D6W584; E9PC80
UniProt Related Accession #	P19525
GenBank Nucleotide #	NM_001135651.2
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
UniProt Protein Name	Interferon-induced, double-stranded RNA-activated protein kinase
UniProt Synonym Protein Names	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
Protein Family	Interferon-inducible double-stranded RNA-dependent protein kinase activator
UniProt Gene Name	EIF2AK2

UniProt Synonym Gene Names	PKR; PRKR; eIF-2A protein kinase 2; PKR; Protein kinase R
UniProt Entry Name	E2AK2_HUMAN
NCBI Protein Information	interferon-induced, double-stranded RNA-activated protein kinase
NCBI Summary for PKR	The protein encoded by this gene is a serine/threonine protein kinase that is activated by autophosphorylation after binding to dsRNA. The activated form of the encoded protein can phosphorylate translation initiation factor EIF2S1, which in turn inhibits protein synthesis. This protein is also activated by manganese ions and heparin. Three transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Oct 2011]
UniProt Comments for PKR	PKR: a protein kinase of the PEK family. Upon binding double-stranded RNA, it becomes autophosphorylated and activated. Phosphorylates and inhibits the alpha subunit of eIF2 alpha, which leads to an inhibition of the initiation of protein synthesis. Controls the activation of several transcription factors such as NF-kappaB, p53 and Stats. Mediates apoptosis induced by many different stimuli, such as LPS, TNF-alpha, viral infection and serum starvation. Protein type: EC 2.7.11.1; Translation; Protein kinase, Ser/Thr (non-receptor); Protein kinase, Other; EC 2.7.10.2; Kinase, protein; Other group; PEK family Chromosomal Location of Human Ortholog: 2p22-p21 Cellular Component: membrane; perinuclear region of cytoplasm; cytoplasm; ribosome; nucleus; cytosol Molecular Function: protein serine/threonine kinase activity; protein binding; double-stranded RNA binding; non-membrane spanning protein tyrosine kinase activity; protein phosphatase type 2A regulator activity; eukaryotic translation initiation factor 2alpha kinase activity; ATP binding; protein kinase activity Biological Process: positive regulation of cytokine production; peptidyl-tyrosine phosphorylation; translation; transcription, DNA-dependent; activation of MAPKK activity; unfolded protein response; response to virus; protein amino acid autophosphorylation; viral infectious cycle; protein amino acid phosphorylation; positive regulation of chemokine production; positive regulation of stress-activated MAPK cascade; evasion by virus of host immune response; activation of NF-kappaB transcription factor; negative regulation of cell proliferation; negative regulation of viral genome replication; modification by virus of host cellular process; virus-host interaction; negative regulation of translation; innate immune response; negative regulation of osteoblast proliferation; defense response to virus; negative regulation of apoptosis
Research Articles on PKR	**1.** PKR directly interacts with HIV-1 Tat and phosphorylates the first exon of Tat exclusively at five Ser/Thr residues, which inhibits Tat-mediated provirus transcription.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-antibody/pkr/9412822