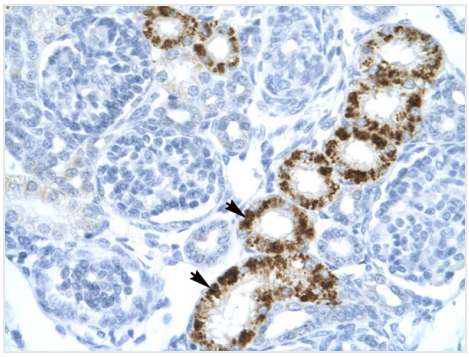
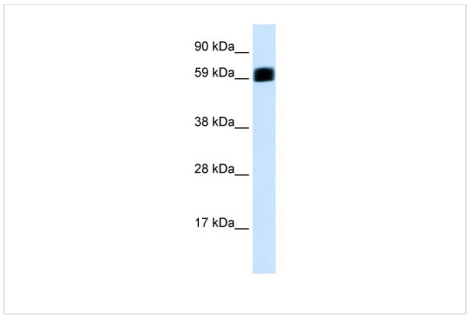
EIF2AK2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	EIF2AK2, Polyclonal Antibody
Full Product Name	EIF2AK2 antibody - C-terminal region
Product Gene Name	anti-EIF2AK2 antibody
Product Synonym Gene Name	EIF2AK1; MGC126524; PKR; PRKR
Immunogen Sequence	Synthetic peptide located within the following region: IISDIFDKKE KTLLQKLLSK KPEDRPNTSE ILRTLTVWKK SPEKNERHTC
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Purity/Purification	Affinity Purified
Preparation and Storage	For short term use, store at 2-8 degree C up to 1 week. For long term storage, store at -20 degree C in small aliquots to prevent freeze-thaw cycles.
Antibody/Peptide Pairs	EIF2AK2 peptide (MBS3225058) is used for blocking the activity of EIF2AK2 antibody (MBS3224445)
Molecular Weight	62kDa
OMIM	176871
3D Structure	ModBase 3D Structure for P19525
Homology	Human: 100%
Immunogen	The immunogen is a synthetic peptide directed towards the C terminal region of human EIF2AK2
Product Categories/Family for anti-EIF2AK2 antibody	Polyclonal; Transcription Factor; RNA Binding Proteins; Cell Cycle Proteins; Lymphocyte Signaling; Cell Biology; Immunology; Disease Related; Immunohistochemistry; Hepatitis C; Phosphorylation
Applications Tested/Suitable for anti-EIF2AK2 antibody	Immunohistochemistry (IHC), Western Blot (WB)
Related Product Information for anti-EIF2AK2 antibody	This is a rabbit polyclonal antibody against EIF2AK2. It was validated on Western Blot and immunohistochemistry Target Description: EIF2AK2 might play a role in ER stress-induced apoptosis and in Alzheimer's disease. Alzheimer cases show prominent EIF2AK2 activation in association with neuritic plaques and pyramidal neurons in the hippocampus and neocortex.
Other Notes	Small volumes of anti-EIF2AK2 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 EIF2AK2 purchase	MBS3224445 is an antibody targeting EIF2AK2. Also known as EIF2AK2 antibody - C-terminal region. Reactive in Human. Host: Rabbit.



Immunohistochemistry (IHC) of anti-EIF2AK2 antibody
Human kidney



Western Blot (WB) of anti-EIF2AK2 antibody
WB Suggested Anti-EIF2AK2 Antibody Titration: 0.125ug/mlPositive Control: Human Stomach

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for EIF2AK2. It may not necessarily be applicable to this product.

NCBI GI #	4506103
NCBI GeneID	5610
NCBI Accession #	NP_002750
UniProt Primary Accession #	P19525
UniProt Related Accession #	P19525
GenBank Nucleotide #	NM_002759
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; Tyrosine-protein kinase EIF2AK2 (EC:2.7.10.2); p68 kinase
Protein Family	Interferon-induced, double-stranded RNA-activated protein kinase
UniProt Gene Name	EIF2AK2
UniProt Synonym Gene Names	PKR; PRKR; eIF-2A protein kinase 2; PKR
UniProt Entry Name	E2AK2_HUMAN
NCBI Protein Information	interferon-induced, double-stranded RNA-activated protein kinase
NCBI Summary for EIF2AK2	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 EIF2AK2	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: Kinase, protein; Translation; EC 2.7.11.1; Protein kinase, Other; EC 2.7.10.2; Protein kinase, Ser/Thr (non-receptor); 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; ATP binding; eukaryotic translation initiation factor 2alpha kinase activity; 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 stress-activated MAPK cascade; positive regulation of chemokine production; 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 EIF2AK2	**1.** We demonstrated the activation of PKR pathway in CADASIL
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