

Immunotag™ PKR (phospho Thr451) Polyclonal Antibody

Antibody Specification	
Catalog No.	ITP0233
Product Description	Immunotag™ PKR (phospho Thr451) Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	PKR (Thr451)
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	IHC-p,ELISA
Recommended Dilution	Immunohistochemistry: 1/100 - 1/300. ELISA: 1/20000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Rabbit
Immunogen	The antiserum was produced against synthesized peptide derived from human PKR around the phosphorylation site of Thr451. AA range:418-467
Specificity	Phospho-PKR (T451) Polyclonal Antibody detects endogenous levels of PKR protein only when phosphorylated at T451.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	EIF2AK2
Accession No.	P19525 Q03963
Alternate Names	EIF2AK2; PKR; PRKR; 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 k

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Description	eukaryotic translation initiation factor 2 alpha kinase 2(EIF2AK2) Homo sapiens 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],
Protein Expression	Brain,Placenta,Uterus,
Subcellular Localization	nucleus,cytoplasm,cytosol,ribosome,membrane,perinuclear region of cytoplasm,
Protein Function	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme regulation:Activity is markedly stimulated by manganese ions. Besides dsRNA, heparin is a potent activator of the kinase. Binding to dsRNA is required for dimerization leading to autophosphorylation in the activation loop and stimulation of function. Inhibited by vaccinia virus protein E3, probably via dsRNA sequestering.,function: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.,induction:By interferon.,PTM:Autophosphorylated on several Ser and Thr residues. Autophosphorylation of Thr-451 is dependent on Thr-446 and is stimulated by dsRNA binding and dimerization. Autophosphorylation apparently leads to the activation of the kinase.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. Ser/Thr protein kinase family. GCN2 subfamily.,similarity:Contains 1 protein kinase domain.,similarity:Contains 2 DRBM (double-stranded RNA-binding) domains.,subunit:Homodimer. Interacts with STRBP (By similarity). Interacts with DNAJC3. Inhibited by direct interaction with viral proteins such as HCV E2, HCV NS5A and influenza A NS1. Activated by the interaction with HIV-1 Tat.,
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