

## PKR Rabbit pAb

CatalogNo: YT3779

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 74kD (Observed)

#### Isotype

- IgG

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Recommended Dilution Ratios

**WB 1:500-1:2000**

**IHC 1:100-1:300**

**ELISA 1:20000**

**IF 1:50-200**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** The antiserum was produced against synthesized peptide derived from human PKR. AA range:413-462

**Specificity** PKR Polyclonal Antibody detects endogenous levels of PKR protein.

### Target Information

**Gene name** EIF2AK2

**Protein Name** Interferon-induced double-stranded RNA-activated protein kinase

Organism	Gene ID	UniProt ID
Human	<a href="#">5610</a> ;	<a href="#">P19525</a> ;
Mouse		<a href="#">Q03963</a> ;

**Cellular Localization** Cytoplasm . Nucleus . Cytoplasm , perinuclear region . Nuclear localization is elevated in acute leukemia , myelodysplastic syndrome (MDS) , melanoma , breast , colon , prostate and lung cancer patient samples or cell lines as well as neurocytes from advanced Creutzfeldt-Jakob disease patients. .

**Tissue specificity** Highly expressed in thymus , spleen and bone marrow compared to non-hematopoietic tissues such as small intestine , liver , or kidney tissues. Colocalizes with GSK3B and TAU in the Alzheimer disease (AD) brain. Elevated levels seen in breast and colon carcinomas , and which correlates with tumor progression and invasiveness or risk of progression.

**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. ,

---

## | Validation Data

## | Contact information

Orders: [order.cn@immunoway.com](mailto:order.cn@immunoway.com)  
Support: [support.cn@immunoway.com](mailto:support.cn@immunoway.com)  
Telephone: 400-8787-807(China)  
Website: <http://www.immunoway.com.cn>  
Address: 2200 Ringwood Ave San Jose, CA 95131 USA



Please scan the QR code to access additional product information:  
**PKR Rabbit pAb**

