

## Anti-PKR/EIF2AK2 Antibody Picoband® FITC Conjugated

Catalog Number: PB9803-FITC

### About EIF2AK2

EIF2AK2 (Eukaryotic Translation Initiation Factor 2-Alpha Kinase 2), also called PKR, is an enzyme that in humans is encoded by the EIF2AK2 gene. Activation of EIF2AK2 allows the kinase to phosphorylate its natural substrate, the alpha subunit of eukaryotic protein synthesis initiation factor-2, leading to the inhibition of protein synthesis. By FISH analysis, Squire et al. (1993) assigned the EIF2AK2 gene to the boundary between chromosome 2p22-p21. Ben-Asouli et al. (2002) showed that human gamma-interferon mRNA uses local activation of PKR in the cell to control its own translation yield. IFNG mRNA was found to activate PKR through a pseudoknot in its 5-prime untranslated region. Taylor et al. (1999) studied the mechanism underlying the resistance of hepatitis C virus (HCV) to interferon. They demonstrated that the HCV envelope protein E2 contains a sequence identical with phosphorylation sites of the interferon-inducible protein kinase PKR and the translation initiation factor EIF2-alpha, a target of PKR. E2 inhibited the kinase activity of PKR and blocked its inhibitory effect on protein synthesis and cell growth.

### Overview

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| Product Name         | Anti-PKR/EIF2AK2 Antibody Picoband® FITC Conjugated  |
| Reactive Species     | Human  |
| Application          | Flow Cytometry   |
| Clonality            | Polyclonal   |
| Formulation          | Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na <sub>2</sub> HPO <sub>4</sub> , 0.02% NaN <sub>3</sub> . |
| Storage Instructions | At -20°C for one year from date of receipt. Avoid repeated freezing and thawing. Protect from light.         |
| Host                 | Rabbit   |
| Uniprot ID           | P19525   |

### Technical Details

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|------------------|--|
| Immunogen        | A synthetic peptide corresponding to a sequence at the C-terminus of human PKR, different from the related mouse sequence by fifteen amino acids, and from the related rat sequence by thirteen amino acids. |
| Cross Reactivity | No cross-reactivity with other proteins.   |
| Isotype          | Rabbit IgG   |
| Form             | Liquid   |
| Concentration    | 0.5 mg/mL  |
| Purification     | Immunogen affinity purified.   |
| Conjugate        | FITC   |

|                     |  |
|---------------------|--|
|                     | Excitation Wavelength: 495 nm<br>Emission Wavelength: 525 nm         |
| Suggested Dilutions | Flow Cytometry, Optimal dilutions should be determined by end users. |

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