

Product datasheet for **AP20864PU-N**

PKR (EIF2AK2) pThr446 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	Western blot: 1/500 - 1/1000.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Specificity:	This antibody detects endogenous levels of PKR protein only when phosphorylated at Thr446.
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction Preservative: 0.05% sodium azide
Concentration:	1.0 mg/ml
Purification:	Affinity chromatography (> 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	Predicted band size: 62 kDa; Observed band size: 68 kDa
Gene Name:	eukaryotic translation initiation factor 2 alpha kinase 2
Database Link:	Entrez Gene 5610 Human P19525



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Background:

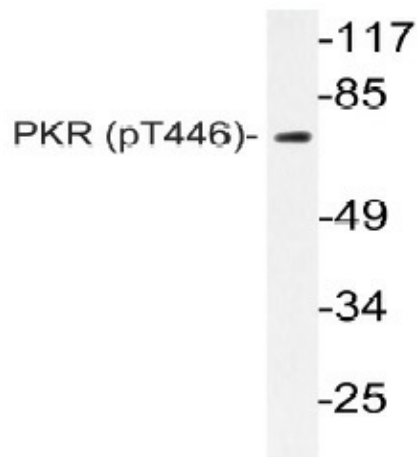
An interferon-inducible, RNA-dependent protein Serine/Threonine kinase, PKR has various designations. Mouse PKR is known as DAI, dsJ, PI kinase, p65, p67 or TIK, whereas human PKR is known as p68 or p69. PKR phosphorylates its substrate, a subunit of protein synthesis initiation factor eIF-2, on Ser 51 to inhibit translation. PKR contains two dsRNA binding motifs required for its activation by dsRNA. Three kinds of regulation of PKR enzymatic activity occur, and these include transcriptional regulation in response to interferon, an autoregulatory mechanism controlling PKR expression at the level of translation, and post-translational regulation by RNA mediated autophosphorylation. Human PKR contains at least 15 autophosphorylation sites, but only Thr 446 and Thr 451 in the activation loop are critical for its kinase activity. Thr 446 is the in vivo autophosphorylation site of PKR. Mutation of Threonine to alanine at position 446 substantially reduces PKR function, and mutant kinase containing Ala 451 is completely inactive.

Synonyms:

eIF-2A protein kinase 2, PRKR

Protein Families:

Druggable Genome, Protein Kinase, Transcription Factors

Product images:

Western blot (WB) analyzes of p-PKR (pThr446) antibody (Cat.-No.: AP20864PU-N) in extracts from NIH-3T3 IFN cells.