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Product datasheet for AP06757PU-M

PERK (EIF2AK3) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	**Western blot:** 1/500-1/1000. **Immunohistochemistry on paraffin sections**: 1/50-1/200. **Immunofluorescence**: 1/50-1/200.
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide, corresponding to amino acids 56-102 of Human PERK.
Specificity:	This antibody detects endogenous levels of PERK protein. (region surrounding Arg87)
Formulation:	Phosphate buffered saline (PBS), pH 7.2. State: Aff - Purified State: Liquid purified Ig fraction (> 95% pure by SDS-PAGE). Preservative: 15 mM Sodium Azide
Concentration:	1.0 mg/ml
Purification:	Affinity Chromatography using epitope-specific immunogen.
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:	~ 125 kDa
Gene Name:	eukaryotic translation initiation factor 2 alpha kinase 3
Database Link:	Entrez Gene 9451 Human Q9NZJ5

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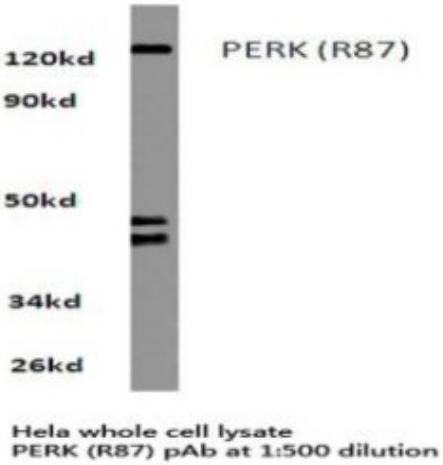
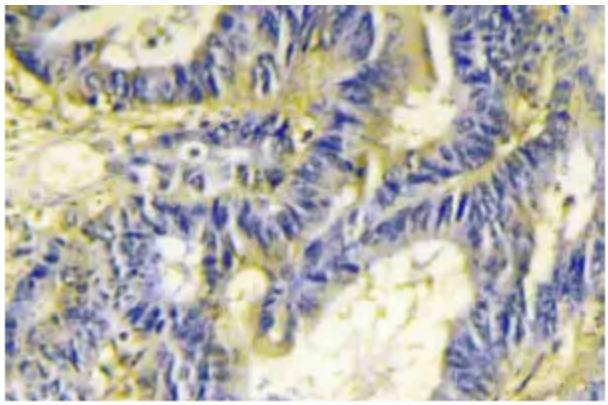
Background: An interferon-inducible, RNA-dependent protein serine /threonine kinase (PKR) has been described. PKR in earlier literature is variously known as DAI, dsJ, PI kinase, p65, p67 or TIK for the mouse kinase; and p68 or p69 for the human kinase. The PKR kinase substrate is the alpha subunit of protein synthesis initiation factor eIF-2. Phosphorylation of eIF-2alpha on serine-51 results in inhibition of translation. The serine /threonine kinase catalytic domains map to the carboxy terminal half of the protein while the RNA-binding domains are located in the amino terminal region. PERK is a type I transmembrane protein located in the endoplasmic reticulum (ER) that contains a kinase domain similar to the kinase domain of PKR. PERK is activated in response to ER stress and phosphorylates eIF-2alpha, thus inhibiting the translation of mRNA.

Synonyms: PEK, PERK, HsPEK

Product images:



Western blot (WB) analysis of PERK antibody in extracts from HeLa cells.



Immunohistochemistry analysis of PERK antibody on paraffin-embedded sections