

Product datasheet for **TA384148S**

PERK (EIF2AK3) Rabbit Monoclonal Antibody [Clone ID: R09-1F9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R09-1F9
Applications:	WB
Recommended Dilution:	WB: 1/1000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	Recombinant protein of human PERK
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 125 kDa; Observed MW: 140 kDa
Gene Name:	eukaryotic translation initiation factor 2 alpha kinase 3
Database Link:	Entrez Gene 9451 Human Q9NZJ5



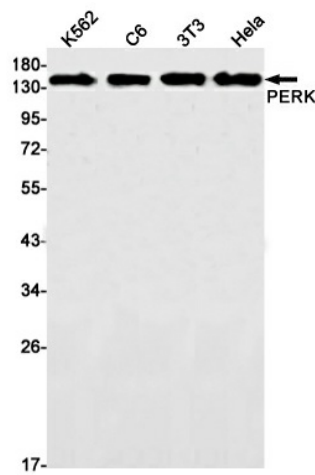
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Background:

Swiss-Prot Acc.Q9NZJ5. Metabolic-stress sensing protein kinase that phosphorylates the alpha subunit of eukaryotic translation initiation factor 2 (eIF-2-alpha/EIF2S1) on 'Ser-52' during the unfolded protein response (UPR) and in response to low amino acid availability. Converts phosphorylated eIF-2-alpha/EIF2S1 either in a global protein synthesis inhibitor, leading to a reduced overall utilization of amino acids, or to a translation initiation activator of specific mRNAs, such as the transcriptional activator ATF4, and hence allowing ATF4-mediated reprogramming of amino acid biosynthetic gene expression to alleviate nutrient depletion. Serves as a critical effector of unfolded protein response (UPR)-induced G1 growth arrest due to the loss of cyclin-D1 (CCND1). Involved in control of mitochondrial morphology and function.

Synonyms:

DKFZp781H1925; HRI; HsPEK; PEK; PERK; WRS

Product images:

Western blot analysis of PERK in K562, C6, 3T3, HeLa lysates using PERK antibody.