

Anti-PERK Antibody

HA500326



Product Type: Rabbit polyclonal IgG, primary antibodies

Species reactivity: Human

Applications: WB

Molecular Wt: Predicted band size: 125 kDa

Description: Metabolic-stress sensing protein kinase that phosphorylates the alpha subunit of eukaryotic translation initiation factor 2 (EIF2S1/eIF-2-alpha) in response to various stress conditions. Key activator of the integrated stress response (ISR) required for adaptation to various stress, such as unfolded protein response (UPR) and low amino acid availability. EIF2S1/eIF-2-alpha phosphorylation in response to stress converts EIF2S1/eIF-2-alpha in a global protein synthesis inhibitor, leading to a global attenuation of cap-dependent translation, while concomitantly initiating the preferential translation of ISR-specific mRNAs, such as the transcriptional activators ATF4 and QRICH1, and hence allowing ATF4- and QRICH1-mediated reprogramming. 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.

Immunogen: Synthetic peptide within human PERK aa 1,067-1,116/1,116.

Positive control: MCF-7 cell lysate, 293 cell lysate, HepG2 cell lysate, Hela cell lysate.

Subcellular location: Endoplasmic reticulum membrane.

Database links: SwissProt: Q9NZJ5 Human

Recommended Dilutions:

WB 1:1,000

Storage Buffer: PBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co.,Ltd.

Orders:0086-571-88062880

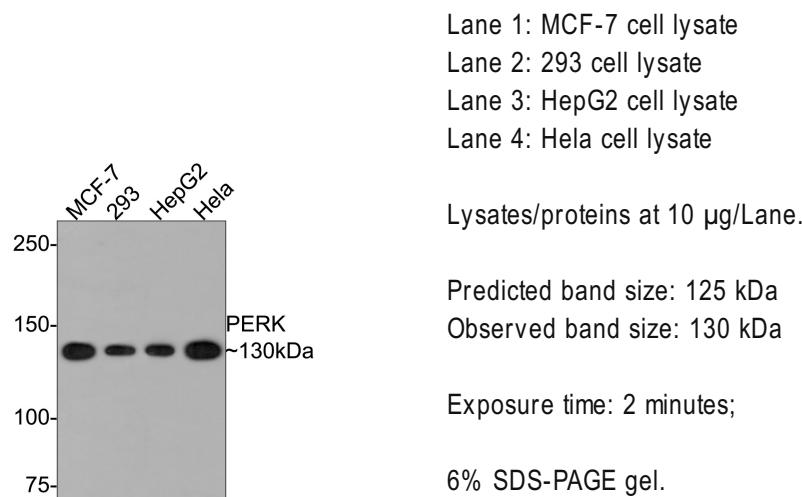
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Images

Fig1: Western blot analysis of PERK on different lysates with Rabbit anti-PERK antibody (HA500326) at 1/1,000 dilution.



Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500326) at 1/1,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Guo J. et. al. PERK controls bone homeostasis through the regulation of osteoclast differentiation and function. *Cell Death Dis.* 2020 Oct
2. Chen S. et. al. Trimethylamine N-Oxide Binds and Activates PERK to Promote Metabolic Dysfunction. *Cell Metab.* 2019 Dec

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