

Anti-PERK Antibody [PSH0-81]

HA721510



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB
Molecular Wt:	Predicted band size: 125 kDa
Clone number:	PSH0-81

Description: Eukaryotic translation initiation factor 2-alpha kinase 3, also known as protein kinase R (PKR)-like endoplasmic reticulum kinase (PERK), is an enzyme that in humans is encoded by the EIF2AK3 gene. The protein encoded by this gene phosphorylates the alpha subunit of eukaryotic translation-initiation factor 2 (EIF2), leading to its inactivation, and thus to a rapid reduction of translational initiation and repression of global protein synthesis. It is a type I membrane protein located in the endoplasmic reticulum (ER), where it is induced by ER stress caused by malformed proteins. Patients with mutations in this gene develop Wolcott-Rallison syndrome. EIF2AK3 has been shown to interact with DNAJC3, NFE2L2, and endoplasmic reticulum chaperone BiP (Hsp70).

Immunogen: Recombinant protein within human PERK aa 51-450 / 1,116.

Positive control: MCF7 cell lysate, HepG2 cell lysate, HEK-293 cell lysate, HeLa cell lysate, A549 cell lysate, U-87 MG cell lysate, K-562 cell lysate.

Subcellular location: Endoplasmic reticulum membrane.

Database links: SwissProt: Q9NZJ5 Human

Recommended Dilutions:

WB 1:1,000

Storage Buffer: PBS (pH7.4), 0.1% 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: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders: 0086-571-88062880

Technical: 0086-571-89986345

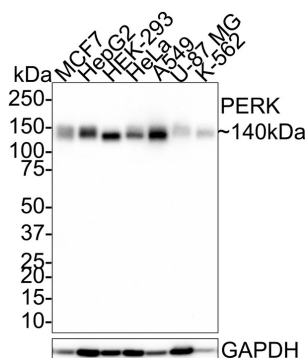
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Applications: WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

Fig1: Western blot analysis of PERK on different lysates with Rabbit anti-PERK antibody (HA721510) at 1/1,000 dilution.



Lane 1: MCF7 cell lysate (20 µg/Lane)
 Lane 2: HepG2 cell lysate (20 µg/Lane)
 Lane 3: HEK-293 cell lysate (20 µg/Lane)
 Lane 4: HeLa cell lysate (20 µg/Lane)
 Lane 5: A549 cell lysate (20 µg/Lane)
 Lane 6: U-87 MG cell lysate (20 µg/Lane)
 Lane 7: K-562 cell lysate (16 µg/Lane)

Predicted band size: 125 kDa
 Observed band size: 140 kDa

Exposure time: 2 minutes;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA721510) 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 1:100,000 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. Zhang D et al. A non-canonical cGAS-STING-PERK pathway facilitates the translational program critical for senescence and organ fibrosis. Nat Cell Biol. 2022 May
2. Raines LN et al. PERK is a critical metabolic hub for immunosuppressive function in macrophages. Nat Immunol. 2022 Mar

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