

# Anti-PERK Antibody

## ER64553



|                            |   |
|----------------------------|---|
| <b>Product Type:</b>       | Rabbit polyclonal IgG, primary antibodies |
| <b>Species reactivity:</b> | Human, Mouse, Rat                         |
| <b>Applications:</b>       | IF-Cell, WB, IHC-P, IF-Tissue             |
| <b>Molecular Wt:</b>       | 125 kDa                                   |

**Description:** 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.

**Immunogen:** The antiserum was produced against synthesized peptide derived from human EIF2AK3. AA range:947-996

**Positive control:** MCF-7 cell, human colon carcinoma, rat-spleen.

**Subcellular location:** Endoplasmic reticulum membrane.

**Database links:** SwissProt: Q9NZJ5 Human

**Recommended Dilutions:**

|                  |               |
|------------------|---------------|
| <b>WB</b>        | 1:500-1:2,000 |
| <b>IF-Cell</b>   | 1:50-1:200    |
| <b>IHC-P</b>     | 1:100-1:300   |
| <b>IF-Tissue</b> | 1:50-1:200    |

**Storage Buffer:** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

**Storage Instruction:** Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

**Purity:** Immunogen affinity purified.

**Hangzhou Huaan Biotechnology Co., Ltd.**

Orders:0086-571-88062880

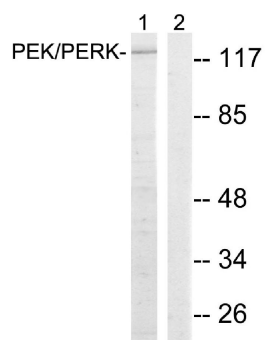
Technical:0086-571-89986345

Service mail:support@huabio.cn

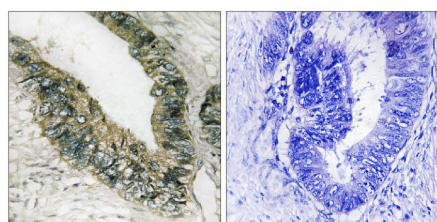
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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

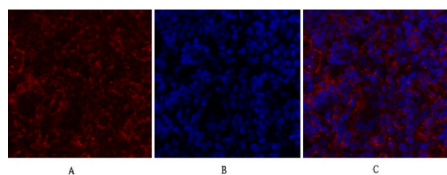
## Images



**Fig1:** Western blot analysis of lysates from MCF-7 cells, using PEK/PERK Antibody. The lane on the right is blocked with the synthesized peptide.



**Fig2:** Immunohistochemistry analysis of paraffin-embedded human colon carcinoma, using PEK/PERK Antibody. The picture on the right is blocked with the synthesized peptide.



**Fig3:** Immunofluorescence analysis of rat-spleen tissue. 1, PERK Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B

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

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