

Anti-PERK/EIF2AK3 Antibody Picoband®

Catalog Number: A01992-2

About EIF2AK3

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, leading to its inactivation, and thus to a rapid reduction of translational initiation and repression of global protein synthesis. This protein is thought to modulate mitochondrial function. It is a type I membrane protein located in the endoplasmic reticulum (ER), where it is induced by ER stress caused by malformed proteins. Mutations in this gene are associated with Wolcott-Rallison syndrome.

Overview

Product Name	Anti-PERK/EIF2AK3 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-PERK/EIF2AK3 Antibody Picoband® catalog # A01992-2. Tested in ELISA, IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q9NZJ5

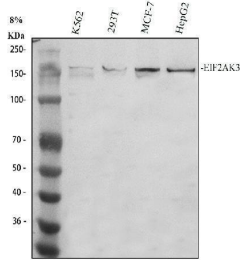
Technical Details

Immunogen	E. coli-derived human PERK recombinant protein (Position: R222-Q334).
Recommended Detection Systems	Boster recommends ECL Plus Western Blotting Substrate (Catalog # AR1196-200) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

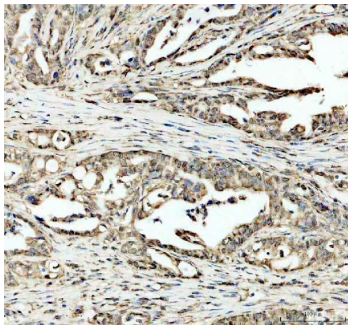
Suggested Dilutions

Western blot, 0.1-0.5ug/ml, Human
Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human
ELISA, 0.1-0.5ug/ml, -

Anti-PERK/EIF2AK3 Antibody Picoband® (A01992-2) Images



Western blot analysis of PERK/EIF2AK3 using anti-PERK/EIF2AK3 antibody (A01992-2). Electrophoresis was performed on a 8% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates, Lane 2: human 293T whole cell lysates, Lane 3: human MCF-7 whole cell lysates, Lane 4: human HepG2 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PERK/EIF2AK3 antigen affinity purified polyclonal antibody (A01992-2) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for PERK/EIF2AK3 at approximately 150 kDa. The expected band size for PERK/EIF2AK3 is at 125 kDa.



IHC analysis of PERK/EIF2AK3 using anti-PERK/EIF2AK3 antibody (A01992-2). PERK/EIF2AK3 was detected in a paraffin-embedded section of human pancreas cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-PERK/EIF2AK3 Antibody (A01992-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

7 Publications Citing This Product

1. PubMed ID: 10.1590/1414-431x20199085, Total Panax notoginseng saponin inhibits balloon injury-induced neointimal hyperplasia in rat carotid artery models by suppressing pERK/p38 MAPK pathways
2. PubMed ID: PMID:27293989, Recombinant Newcastle disease virus (rL-RVG) triggers autophagy and apoptosis in gastric carcinoma cells by inducing ER stress
3. PubMed ID: 10.3892/ol.2013.1651, Endoplasmic reticulum stress in diethylnitrosamine-induced rat liver cancer

Visit bosterbio.com/anti-perk-picoband-trade-antibody-a01992-2-boster.html to see all 7 publications.

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