BioLegend
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Product Data Sheet

Purified anti-PERK Phospho (Ser713)

Catalog # / Size: 649401 / 100 µl (5 Western blots)
649402 / 400 µl (20 Western blots)

Clone: Poly6494

Isotype: Rabbit polyclonal

Immunogen: Modified synthetic peptide

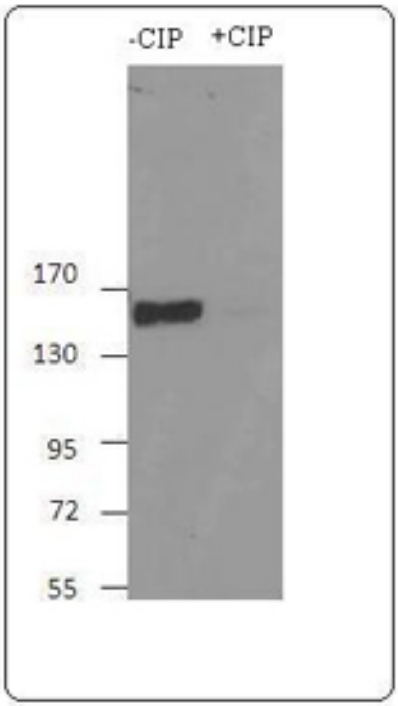
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography.

Formulation: This antibody is provided in phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 50% glycerol.

Concentration: 0.5 mg/ml

Storage: Upon receipt, store at -20°C.



293E cells were transfected with PERK-FLAG construct. Cell lysates were then immunoprecipitated with L5 antibody. Proteins were then treated with calf intestinal alkaline phosphatase (CIP). The proteins without CIP treatment were used as the control. Samples were separated by electrophoresis, transferred to nitrocellulose and probed with anti-PERK phospho (Ser713) antibody. Proteins were visualized using a donkey anti-rabbit secondary conjugated to HRP and a chemiluminenescent system.

Applications:

Applications: WB - *Quality tested*

Recommended Usage: Each lot of this antibody is quality control tested by Western blotting. Western blotting, suggested working dilution(s): Use 20 µl per 5 ml antibody dilution buffer for each mini-gel. It is recommended that the reagent be titrated for optimal performance for each application.

Application Notes: The optimal concentration should be determined by titration for each individual assay of interest.

Application References:
1. Devi, L. *et al*. 2012. *PLoS One*. 7:e32792. PubMed
2. Zang Y, *et al.* 2012. *Clin Cancer Res.* 18:5639. PubMed.

Description: PERK (protein kinase-like endoplasmic reticulum kinase) is a type I membrane protein located in the endoplasmic reticulum (ER). ER stress increases the activity of PERK, which then phosphorylates eIF2α to promote reduced translation, leading to its inactivation, and thus to a rapid reduction of translational initiation and repression of global protein synthesis. PERK-deficient mice have defects in pancreatic β cells several weeks after birth, suggesting a role for PERK-mediated translational control in protecting secretory cells from ER stress. PERK activation during ER stress correlates with autophosphorylation of its cytoplasmic kinase domain. Phosphorylation of PERK at Ser713 can be used as a marker for its activation status. The predicted phosphorylation site and surrounding residues of Ser713 are: HIEIIAPS*PQRSRSF.

Antigen References:
1. Shi Y, *et al.* 1998. *Mol. Cell. Biol.* 18:7499.
2. Shi Y, *et al.* 1999. *J. Biol. Chem.* 274:5723.
3. Cybulsky AY, *et al.* 2005. *J. Biol. Chem*. 280:24396.
4. Kohno K. 2010. *J. Biochem.* 147:27.

Related Products:

Product	Clone	Application
HRP Donkey anti-rabbit IgG (minimal x-reactivity)	Poly4064	ELISA, IHC, WB

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