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Anti-Keap1 Antibody Picoband®

Catalog Number: PB9762

About KEAP1

KEAP1 (KELCH-LIKE ECH-ASSOCIATED PROTEIN 1), is a protein that in humans is encoded by the Keap1 gene. The KIAA0132 gene is mapped on 19p13.2. Keap1 contains a central BTB/POZ domain and a C-terminal double glycine repeat (DGR), or Kelch, module. Keap1 has been shown to interact with Nrf2, a master regulator of the antioxidant response, which is important for the amelioration of oxidative stress. In the presence of the electrophilic agent diethylmalate, Nrf2 activity is released from Keap1 and Nrf2 translocate to the nucleus. Under quiescent conditions, Nrf2 is anchored in the cytoplasm through binding to Keap1, which, in turn, facilitates the ubiquitination and subsequent proteolysis of Nrf2. Because Nrf2 activation leads to a coordinated antioxidant and anti-inflammatory response, and Keap1 represses Nrf2 activation, Keap1 has become a very attractive drug target.

Overview

Product Name	Anti-Keap1 Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Keap1 Antibody Picoband® catalog # PB9762. Tested in 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	WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3. *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	Q14145

Technical Details

Immunogen	E.coli-derived human Keap1 recombinant protein (Position: E25-E205). Human Keap1 shares 96.7% and 97.2% amino acid (aa) sequence identity with mouse and rat Keap1, respectively.

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Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human

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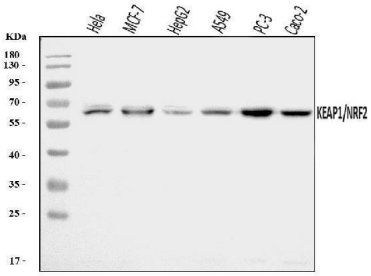
Anti-Keap1 Antibody Picoband® (PB9762) Images



Western blot analysis of Keap1 using anti-Keap1 antibody (PB9762). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Hela whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human A549 whole cell lysates, Lane 5: human PC-3 whole cell lysates, Lane 6: human Caco-2 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-Keap1 antigen affinity purified polyclonal antibody (Catalog # PB9762) 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 Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Keap1 at approximately 66 kDa. The expected band size for Keap1 is at 70 kDa.

3 Publications Citing This Product

1. PubMed ID: 26339340, Bone marrow mesenchymal stem cells protect against bleomycin-induced pulmonary fibrosis in rat by activating Nrf2 signaling

2. PubMed ID: 25288107, Deng Y, Zhu J, Mi C, Xu B, Jiao C, Li Y, Xu D, Liu W, Xu Z. Neurotox Res. 2015 Feb;27(2):156-71. Doi: 10.1007/S12640-014-9489-5. Epub 2014 Oct 7. Melatonin Antagonizes Mn-Induced Oxidative Injury Through The Activation Of Keap1-Nrf2-Are Signaling ...

3. PubMed ID: 29744366, Zhu X, Chen Y, Chen Q, Yang H, Xie X. J Diabetes Res. 2018 Mar 21;2018:6730315. doi: 10.1155/2018/6730315. eCollection 2018. Astaxanthin Promotes Nrf2/ARE Signaling to Alleviate Renal Fibronectin and Collagen IV Accumulation in Diabetic Rats

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