

KEAP1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP10441b

Specification

KEAP1 Antibody (C-term) - Product Information

Application Primary Accession Other Accession Reactivity Predicted Host Clonality Isotype Antigen Region WB, FC,E <u>O14145</u> <u>O684M4</u>, <u>NP_036421.2</u>, <u>NP_987096.1</u> Human Pig Rabbit Polyclonal Rabbit IgG 429-459aa

KEAP1 Antibody (C-term) - Additional Information

Gene ID 9817

Other Names Kelch-like ECH-associated protein 1, Cytosolic inhibitor of Nrf2, INrf2, Kelch-like protein 19, KEAP1, INRF2, KIAA0132, KLHL19

Target/Specificity

This KEAP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the C-terminal region of human KEAP1.

Dilution WB~~1:1000 FC~~1:10~50 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

KEAP1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

KEAP1 Antibody (C-term) - Protein Information

Name KEAP1 {ECO:0000303|PubMed:14585973, ECO:0000312|HGNC:HGNC:23177}



Function Substrate-specific adapter of a BCR (BTB-CUL3-RBX1) E3 ubiquitin ligase complex that regulates the response to oxidative stress by targeting NFE2L2/NRF2 for ubiguitination (PubMed:14585973, PubMed:15379550, PubMed:15572695, PubMed:15601839, PubMed:<u>15983046</u>, PubMed:<u>37339955</u>). KEAP1 acts as a key sensor of oxidative and electrophilic stress: in normal conditions, the BCR(KEAP1) complex mediates ubiquitination and degradation of NFE2L2/NRF2, a transcription factor regulating expression of many cytoprotective genes (PubMed: 15601839, PubMed: 16006525). In response to oxidative stress, different electrophile metabolites trigger non-enzymatic covalent modifications of highly reactive cysteine residues in KEAP1, leading to inactivate the ubiquitin ligase activity of the BCR(KEAP1) complex, promoting NFE2L2/NRF2 nuclear accumulation and expression of phase II detoxifying enzymes (PubMed:16006525, PubMed:17127771, PubMed:18251510, PubMed:19489739, PubMed: 29590092). In response to selective autophagy, KEAP1 is sequestered in inclusion bodies following its interaction with SQSTM1/p62, leading to inactivation of the BCR(KEAP1) complex and activation of NFE2L2/NRF2 (PubMed: 20452972). The BCR(KEAP1) complex also mediates ubiguitination of SQSTM1/p62, increasing SQSTM1/p62 sequestering activity and degradation (PubMed:<u>28380357</u>). The BCR(KEAP1) complex also targets BPTF and PGAM5 for ubiquitination and degradation by the proteasome (PubMed: 15379550, PubMed: 17046835).

Cellular Location

Cytoplasm. Nucleus. Note=Mainly cytoplasmic (PubMed:15601839). In response to selective autophagy, relocalizes to inclusion bodies following interaction with SQSTM1/p62 (PubMed:20452972).

Tissue Location

Broadly expressed, with highest levels in skeletal muscle.

KEAP1 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture
- KEAP1 Antibody (C-term) Images





KEAP1 Antibody (C-term) (Cat. #AP10441b) western blot analysis in HepG2 cell line lysates (35ug/lane). This demonstrates the KEAP1 antibody detected the KEAP1 protein (arrow).



KEAP1 Antibody (C-term) (Cat. #AP10441b) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.