

KEAP1 (aa41-53) Antibody (internal region, near N-Term)
Peptide-affinity purified goat antibody
Catalog # AF3560a

Specification

KEAP1 (aa41-53) Antibody (internal region, near N-Term) - Product Information

Application	WB, IHC, IF
Primary Accession	Q14145
Other Accession	NP_036421.2 , 9817 , 50868 (mouse) , 117519 (rat)
Reactivity	Human, Mouse
Predicted	Rat, Pig, Dog, Cow
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	69666

KEAP1 (aa41-53) Antibody (internal region, near N-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

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

KEAP1 (aa41-53) Antibody (internal region, near N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

KEAP1 (aa41-53) Antibody (internal region, near N-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 ubiquitination (PubMed:14585973, PubMed:15379550, PubMed:15572695, PubMed:15572695, PubMed:15572695)

<http://www.uniprot.org/citations/15601839> target="_blank">15601839, PubMed:15983046, PubMed:37339955). 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 ubiquitination of SQSTM1/p62, increasing SQSTM1/p62 sequestering activity and degradation (PubMed:28380357). 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

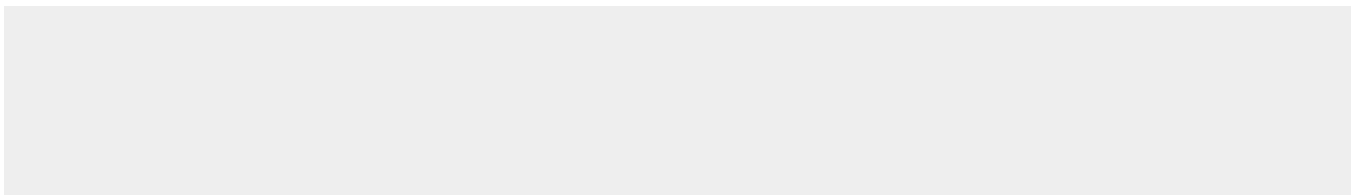
Broadly expressed, with highest levels in skeletal muscle.

KEAP1 (aa41-53) Antibody (internal region, near N-Term) - Protocols

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

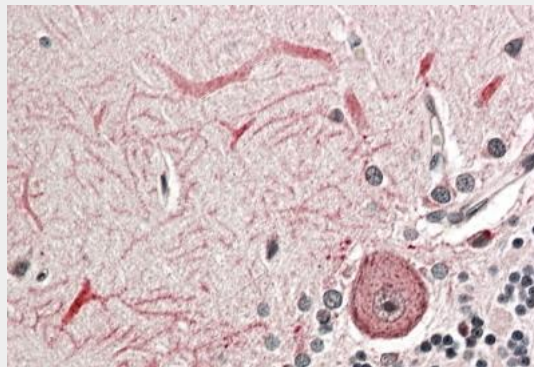
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KEAP1 (aa41-53) Antibody (internal region, near N-Term) - Images

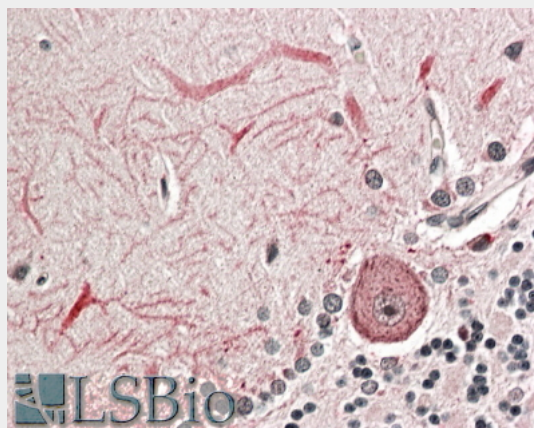




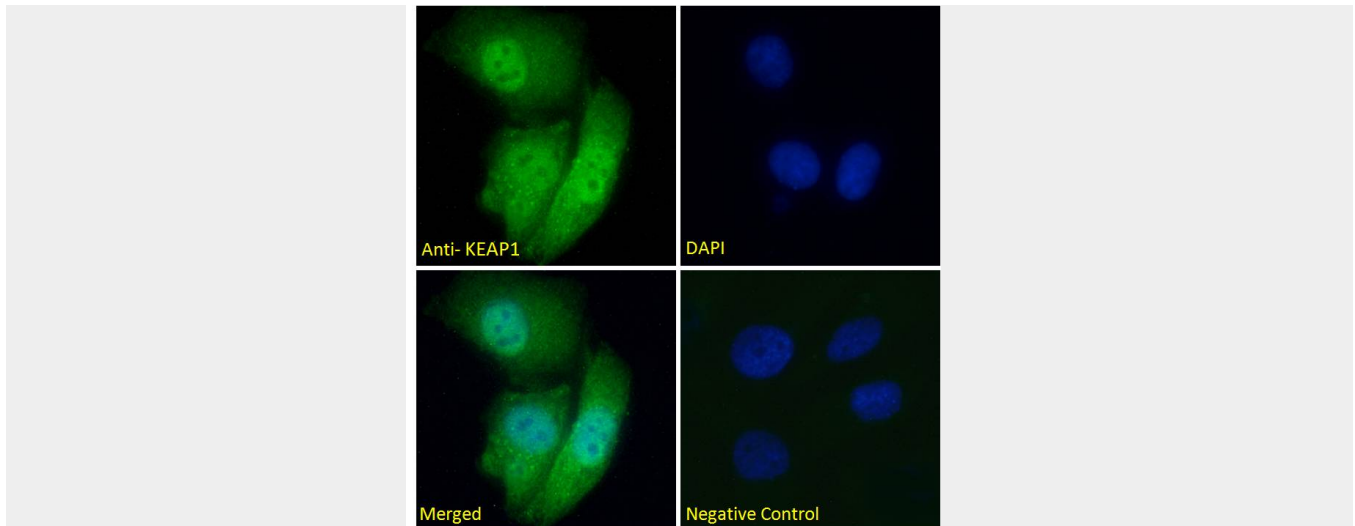
AF3560a (0.2 μ g/ml) staining of NIH3T3 lysate (35 μ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



AF3560a (3.8 μ g/ml) staining of paraffin embedded Human Cerebellum. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



EB10963 (3.8 μ g/ml) staining of paraffin embedded Human Cerebellum. Steamed antigen retrieval with citrate buffer pH 6, AP-staining.



EB10963 Immunofluorescence analysis of paraformaldehyde fixed HeLa cells, permeabilized with 0.15% Triton. Primary incubation 1hr (5ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing nuclear and cytoplasmic staining. The nuclear stain

KEAP1 (aa41-53) Antibody (internal region, near N-Term) - Background

Reported variants represent identical protein: NP_036421.2, NP_987096.1

KEAP1 (aa41-53) Antibody (internal region, near N-Term) - References

An exceptionally potent inducer of cytoprotective enzymes: elucidation of the structural features that determine inducer potency and reactivity with Keap1. Dinkova-Kostova AT, Talalay P, Sharkey J, Zhang Y, Holtzclaw WD, Wang XJ, David E, Schiavoni KH, Finlayson S, Mierke DF, Honda T. J Biol Chem. 2010 Oct 29;285(44):33747-55. PMID: 20801881