

KEAP1 Antibody
Mouse Monoclonal Antibody (Mab)
Catalog # AM1968b

Specification

KEAP1 Antibody - Product Information

Application	WB,E
Primary Accession	Q14145
Other Accession	Q684M4 , NP_036421.2 , NP_987096.1
Reactivity	Human
Predicted	Pig
Host	Mouse
Clonality	Monoclonal
Isotype	IgM,k
Antigen Region	422-449

KEAP1 Antibody - 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 mice
immunized with a KLH conjugated synthetic
peptide between 422-449 amino acids from
human KEAP1.

Dilution

WB~~1:100

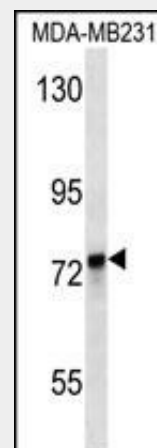
Format

Purified monoclonal antibody supplied in
PBS with 0.09% (W/V) sodium azide. This
antibody is prepared by Euglobin
precipitation followed by dialysis against
PBS.

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 (Cat. #AM1968b) western
blot analysis in MDA-MB231 cell line lysates
(35µg/lane). This demonstrates the KEAP1
antibody detected the KEAP1 protein (arrow).

KEAP1 Antibody - Background

This gene encodes a protein containing
KELCH-1 like
domains, as well as a BTB/POZ domain.
Kelch-like ECH-associated
protein 1 interacts with NF-E2-related factor 2
in a
redox-sensitive manner and the dissociation of
the proteins in the
cytoplasm is followed by transportation of
NF-E2-related factor 2
to the nucleus. This interaction results in the
expression of the
catalytic subunit of gamma-glutamylcysteine
synthetase. Two
alternatively spliced transcript variants
encoding the same isoform
have been found for this gene.

KEAP1 Antibody - References

Dinkova-Kostova, A.T., et al. J. Biol. Chem.
285(44):33747-33755(2010)
Kang, H.J., et al. J. Biol. Chem.
285(28):21258-21268(2010)

KEAP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

KEAP1 Antibody - 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:15983046, PubMed:15601839). 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:19489739, PubMed:16006525, PubMed:16006525).

Lau, A., et al. Mol. Cell. Biol. 30(13):3275-3285(2010)
Copple, I.M., et al. J. Biol. Chem. 285(22):16782-16788(2010)
Takahashi, T., et al. J Surg Oncol 101(6):500-506(2010)

PubMed:17127771, PubMed:18251510, 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 Antibody - 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](#)