

# KEAP1 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1782a

## Product Information

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<b>Application</b>	WB, IHC, FC, E
<b>Primary Accession</b>	<a href="#">Q14145</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Clone Names</b>	7G4B10
<b>Isotype</b>	IgG1
<b>Calculated MW</b>	69666
<b>Description</b>	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.
<b>Immunogen</b>	Purified recombinant fragment of human KEAP1 (AA: 380-624 ) expressed in E. Coli.
<b>Formulation</b>	Purified antibody in PBS with 0.05% sodium azide

## Additional Information

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<b>Gene ID</b>	9817
<b>Other Names</b>	Kelch-like ECH-associated protein 1, Cytosolic inhibitor of Nrf2, INrf2, Kelch-like protein 19, KEAP1, INRF2, KIAA0132, KLHL19
<b>Dilution</b>	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 E~~1/10000
<b>Storage</b>	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.
<b>Precautions</b>	KEAP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	KEAP1 {ECO:0000303 PubMed:14585973, ECO:0000312 HGNC:HGNC:23177}
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## 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:[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.

## References

1.Epigenetics. 2011 Mar;6(3):317-25. 2.Cell Death Differ. 2011 Mar;18(3):439-51.

## Images

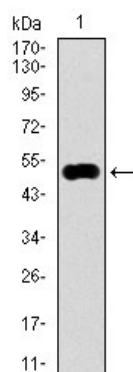


Figure 1: Western blot analysis using KEAP1 mAb against human KEAP1 recombinant protein. (Expected MW is 52.7 kDa)

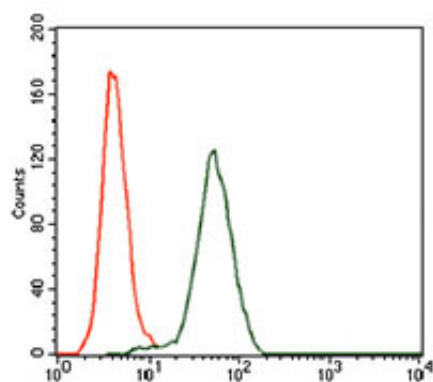


Figure 2: Flow cytometric analysis of HeLa cells using KEAP1 mouse mAb (green) and negative control (red).

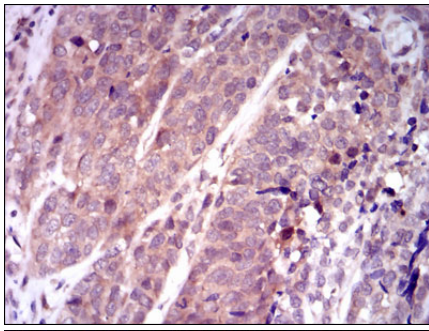


Figure 3: Immunohistochemical analysis of paraffin-embedded bladder cancer tissues using KEAP1 mouse mAb with DAB staining.

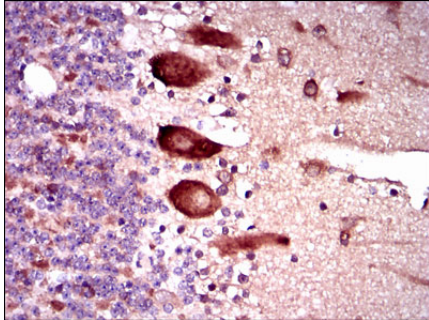


Figure 4: Immunohistochemical analysis of paraffin-embedded cerebellum tissues using KEAP1 mouse mAb with DAB staining.

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