

Keap1 Polyclonal Antibody
Catalog # AP73401**Specification****Keap1 Polyclonal Antibody - Product Information**

Application	WB
Primary Accession	Q14145
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

Keap1 Polyclonal Antibody - Additional Information

Gene ID 9817

Other Names

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

Dilution

WB~~Western Blot: 1/500 - 1/2000. IHC-p: 1:100-300 ELISA: 1/20000. Not yet tested in other applications.

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

Keap1 Polyclonal 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](http://www.uniprot.org/citations/14585973), PubMed: [15379550](http://www.uniprot.org/citations/15379550), PubMed: [15572695](http://www.uniprot.org/citations/15572695), PubMed: [15601839](http://www.uniprot.org/citations/15601839), PubMed: [15983046](http://www.uniprot.org/citations/15983046), PubMed: [37339955](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/15601839), PubMed: [16006525](http://www.uniprot.org/citations/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.

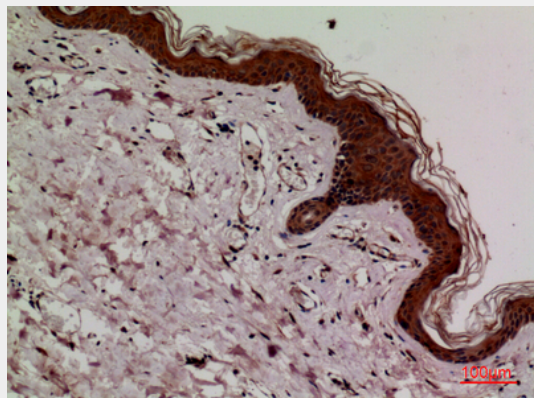
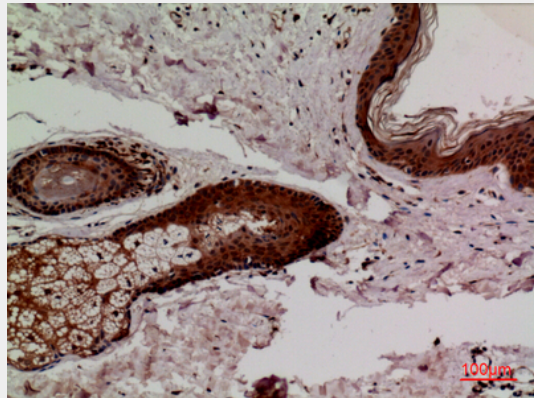
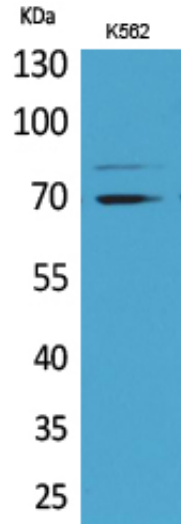
Keap1 Polyclonal Antibody - Protocols

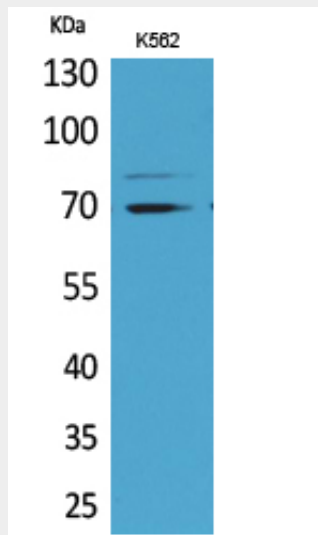
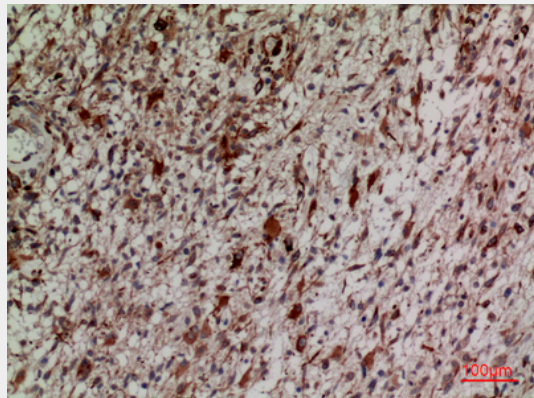
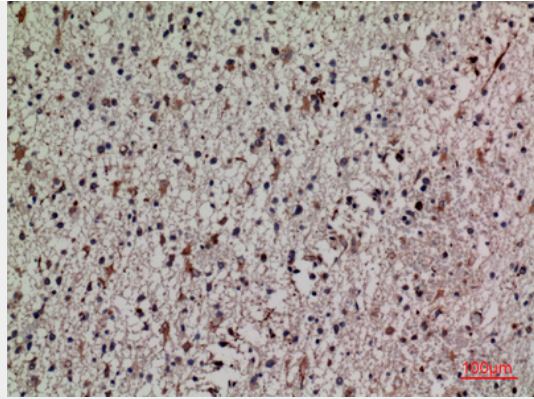
Provided below are standard protocols that you may find useful for product applications.

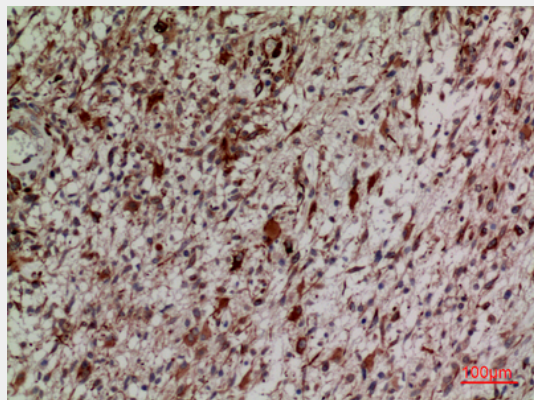
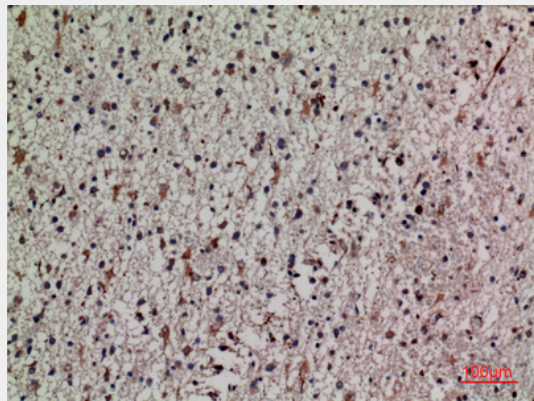
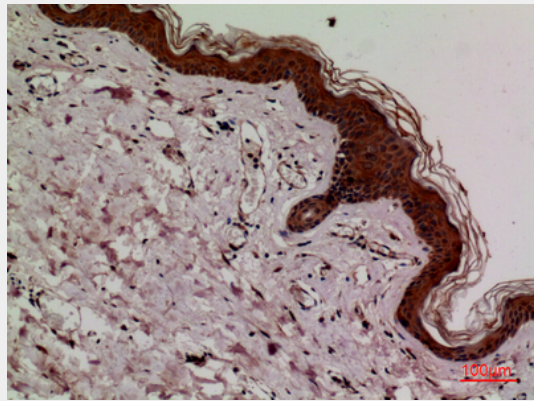
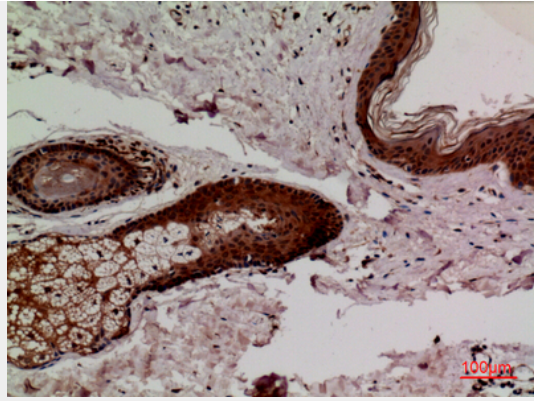
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Keap1 Polyclonal Antibody - Images









Keap1 Polyclonal Antibody - Background

Acts as a substrate adapter protein for the E3 ubiquitin ligase complex formed by CUL3 and RBX1 and targets NFE2L2/NRF2 for ubiquitination and degradation by the proteasome, thus resulting in the suppression of its transcriptional activity and the repression of antioxidant response element-mediated detoxifying enzyme gene expression. Retains NFE2L2/NRF2 and may also retain BPTF in the cytosol. Targets PGAM5 for ubiquitination and degradation by the proteasome.