# KEAP1 Antibody – Rabbit Polyclonal

## PRODUCT OVERVIEW

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| **Product Name** | KEAP1, Polyclonal Antibody |
| **Full Product Name** | KEAP1 (Kelch-like ECH-associated Protein 1, Cytosolic Inhibitor of Nrf2, INrf2, Kelch-like Protein 19, INRF2, KIAA0132, KLHL19) (MaxLight 490) |
| **Product Gene Name** | anti-KEAP1 antibody |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human, Mouse, Rat |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490. |
| **Purity/Purification** | Purified by Immunoaffinity chromatography. |
| **Specificity** | Recognizes human KEAP1. Species Crossreactivity: Mouse and rat. |
| **Preparation and Storage** | Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap. |
| **Molecular Weight** | 69,666 Da |
| **OMIM** | 606016 |
| **3D Structure** | ModBase 3D Structure for Q14145 |
| **Immunogen** | Synthetic linear peptide corresponding to human KEAP1 (KLH). |
| **Conjugate** | MaxLight490 |
| **Positive Control** | HeLa Cell Lysate |
| **Note** | Preservative Free |
| **Product Categories/Family for anti-KEAP1 antibody** | Antibodies; Kelch-like Proteins |
| **Applications Tested/Suitable for anti-KEAP1 antibody** | Immunocytochemistry (ICC), Western Blot (WB) |
| **Application Notes for anti-KEAP1 antibody** | ICC: 2ug/ml<br>WB: 1ug/ml<br>Applications are based on unconjugated antibody. |
| **Related Product Information for anti-KEAP1 antibody** | MBS6269743 is an antibody targeting KEAP1. Also known as KEAP1 (Kelch-like ECH-associated Protein 1, Cytosolic Inhibitor of Nrf2, INrf2, Kelch-like Protein 19, INRF2, KIAA0132, KLHL19) (MaxLight 490). Reactive in Human, Mouse, Rat. Host: Rabbit. |
| **Product References and Citations for anti-KEAP1 antibody** | 1. Lee, S., et al. (2011). World J Cardiol. 3(1):18-24. 2. Kundu, J.K., et al. (2010). Pharm Res. 27(6): 999-1013. 3. Li, C.Q., et al. (2009). Proc Natl Acad Sci USA. 106(34):14547-14551. |
| **Other Notes** | Small volumes of anti-KEAP1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for KEAP1. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 22027642 |
| **NCBI GeneID** | 9817 |
| **NCBI Accession #** | NP_036421 |
| **UniProt Primary Accession #** | Q14145 |
| **UniProt Secondary Accession #** | Q6LEP0; Q8WTX1; Q9BPY9; B3KPD5 |
| **UniProt Related Accession #** | Q14145 |
| **GenBank Nucleotide #** | NM_012289 |
| **NCBI Official Full Name** | kelch-like ECH-associated protein 1 |
| **NCBI Official Synonym Full Names** | kelch-like ECH-associated protein 1 |
| **NCBI Official Symbol** | KEAP1 |
| **NCBI Official Synonym Symbols** | INrf2; KLHL19 |
| **UniProt Protein Name** | Kelch-like ECH-associated protein 1 |
| **UniProt Synonym Protein Names** | Cytosolic inhibitor of Nrf2; INrf2; Kelch-like protein 19 |
| **Protein Family** | Kelch-like ECH-associated protein |
| **UniProt Gene Name** | KEAP1 |
| **UniProt Synonym Gene Names** | INRF2; KIAA0132; KLHL19; INrf2 |
| **UniProt Entry Name** | KEAP1_HUMAN |
| **NCBI Protein Information** | kelch-like ECH-associated protein 1; cytosolic inhibitor of Nrf2; kelch-like family member 19; kelch-like protein 19 |

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| **UniProt Comments for KEAP1** | KEAP1: a substrate adapter protein for the E3 ubiquitin ligase complex formed by CUL3 and RBX1. Has tumor suppressor activity. Retains NRF2, BPTF and PGAM5 in the cytosol. Targets NRF2 for ubiquitination and degradation by the proteasome, thus resulting in the suppression of its transcriptional activity and of antioxidant response element-mediated detoxifying enzyme gene expression. Somatic mutations of KEAP1 or NRF2 commonly occur in solid cancers, irrespective of histological type, resulting in the constitutive transcription of cytoprotective genes. Genetic disruption of the KEAP1/CUL3 E3 ubiquitin ligase complex leads to the activation of the NF-kappaB pathway in lung cancer. Alternative activation of the cytoprotective NRF2 pathway exist in the absence of mutations in KEAP1 and HRF2: WTX, PALB2, SQSTM1, and DPP3 can competitively bind KEAP1. These proteins and others that bind KEAP1 contain an Â¿ETGEÂ¿ amino acid motif, which matches the KEAP1 interaction motif found in NRF2. Binding of these Â¿ETGEÂ¿-containing proteins can displace NRF2, freeing it to translocate to the nucleus and implement its cytoprotective transcriptional pathway. The DPP3 gene is frequently overexpressed in squamous cell lung carcinomas with high wt NRF2 activity. Its expression level significantly correlates with the response rate and progression-free survival of platinum-based first-line chemotherapy. May be a useful biomarker for predicting the chemosensitivity of patients with advanced-stage NSCLC. Broadly expressed, with highest levels in skeletal muscle. Ubiquitination and subsequent degradation of PGAM5 is inhibited by oxidative stress and sulforaphane.<br><br>Protein type: Ubiquitin conjugating system; Transcription regulation; Motility/polarity/chemotaxis; Endoplasmic reticulum<br><br>Chromosomal Location of Human Ortholog: 19p13.2<br><br>Cellular Component: nucleoplasm; endoplasmic reticulum; cytoplasm; microtubule organizing center; midbody; cytosol<br><br>Molecular Function: protein binding; transcription factor binding<br><br>Biological Process: transcription, DNA-dependent; in utero embryonic development; positive regulation of proteasomal ubiquitin-dependent protein catabolic process; negative regulation of transcription factor activity; proteasomal ubiquitin-independent protein catabolic process; protein ubiquitination; regulation of epidermal cell differentiation |
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