# Recombinant Human kelch-like ECH-associated protein 1 Protein, His tagged

**Cat. No.** KEAP1-151H **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant human KEAP1 protein (Q14145) (Thr 309-Cys 624) with a His tag at the C-terminus was expressed in E. coli. |
| **Species** | Human |
| **Source** | E.coli |
| **ProteinLength** | 309-624aa |
| **Description** | 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. 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. 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. 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. The BCR (KEAP1) complex also mediates ubiquitination of SQSTM1/p62, increasing SQSTM1/p62 sequestering activity and degradation. |

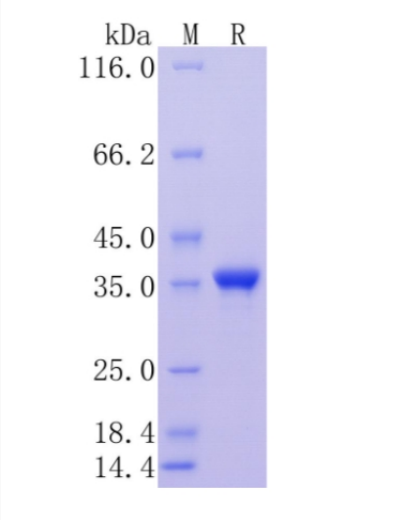
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| **Tag** | C-His |
| **Molecular Mass** | 36.5 kDa |
| **Endotoxin** | Less than 1.0 EU/μg by the LAL method. |
| **Purity** | >95% as determined by SDS-PAGE. |
| **Storage** | Please avoid repeated freeze-thaw cycles. Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade. It is recommended that aliquot the reconstituted solution to minimize freeze-thaw cycles. |
| **Storage Buffer** | Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, 5% Trehalose, 5% mannitol. |
| **Reconstitution** | Reconstitute at 250 μg/mL in sterile water. |

## GENE INFORMATION

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| **Gene Name** | KEAP1 kelch-like ECH-associated protein 1 [ Homo sapiens (human) ] |
| **Official Symbol** | KEAP1 |
| **Synonyms** | KEAP1; kelch-like ECH-associated protein 1; INrf2; KIAA0132; KLHL19; MGC1114; MGC4407; MGC9454; MGC10630; MGC20887; kelch-like protein 19; cytosolic inhibitor of Nrf2; |
| **Gene ID** | 9817 |
| **mRNA Refseq** | NM_012289 |

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| **Protein Refseq** | NP_036421 |
| **MIM** | 606016 |
| **UniProt ID** | Q14145 |
| **Protein on SDS-PAGE under reducing (R) condition.** |  |



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