

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

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

SPECIFICATION

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	
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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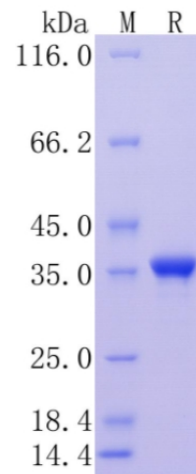
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Protein Refseq NP_036421

MIM 606016

UniProt ID Q14145

Protein on SDS-PAGE under reducing (R) condition.



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