

Recombinant Human KEAP1/INRF2 Protein (His & GST Tag)

Catalog Number: PKSH030945

Note: Centrifuge before opening to ensure complete recovery of vial contents.

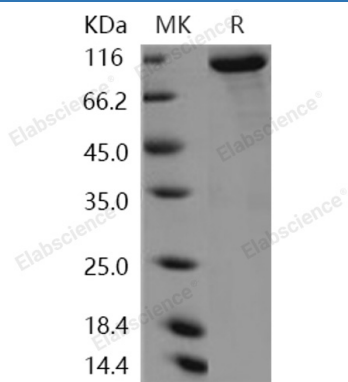
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human KEAP1/INRF2 protein Gln2-Cys624, with an N-terminal His & GST
Calculated MW	97.5 kDa
Observed MW	109 kDa
Accession	NP_036421.2
Bio-activity	Not validated for activity

Properties

Purity	> 85 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile 20 mM Tris, 300 mM NaCl, 10% Glycerol, 2 mM TCEP, pH 7.5.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 85 % as determined by reducing SDS-PAGE.

Background

Kelch-like ECH-associated protein 1, also known as cytosolic inhibitor of Nrf2, Kelch-like protein 19, KEAP1 and INRF2, is a cytoplasm and nucleus protein which contains one BACK (BTB/Kelch associated) domain, one BTB (POZ) domain and six Kelch repeats. KEAP1 / INRF2 is broadly expressed, with highest levels in skeletal muscle. KEAP1 / INRF2 is a key regulator of the NRF2 transcription factor, which transactivates the antioxidant response element (ARE) and upregulates numerous proteins involved in antioxidant defense. Under basal conditions, KEAP1 / INRF2 targets NRF2 for ubiquitination and proteolytic degradation and as such is responsible for the rapid turnover of NRF2. KEAP1 / INRF2 retains NFE2L2 / NRF2 in the cytosol. KEAP1 / INRF2 functions as substrate adapter protein for the E3 ubiquitin ligase complex formed by CUL3 and RBX1. It 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. KEAP1 / INRF2 may also retain BPTF in the cytosol. It targets PGAM5 for ubiquitination and degradation by the proteasome.

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