

Recombinant Human KEAP1/INRF2 Protein

Catalog Number: PKSH030943

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

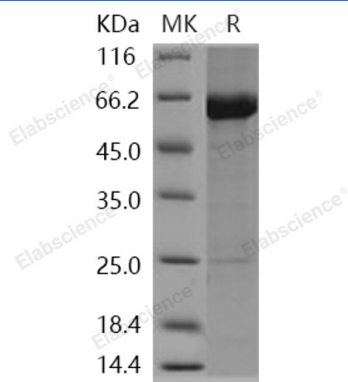
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human KEAP1/INRF2 protein Gln2-Cys624
Calculated MW	69.7 kDa
Observed MW	64 kDa
Accession	Q14145
Bio-activity	Not validated for activity

Properties

Purity	> 90 % 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 20mM Tris, 500mM NaCl, 3mM DTT, 10% glycerol, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Reconstitution	Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information.

Data



> 90 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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.