

Product datasheet for **TA321818**

KEAP1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:500-2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Fusion protein corresponding to C terminal 300 amino acids of human kelch-like ECH-associated protein 1
Formulation:	PBS pH7.3, 0.05% NaN ₃ , 50% glycerol
Concentration:	lot specific
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	70 kDa
Gene Name:	kelch like ECH associated protein 1
Database Link:	NP_036421 Entrez Gene 50868 MouseEntrez Gene 117519 RatEntrez Gene 9817 Human Q14145



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Background:

The nuclear factor-like 2 (NRF2) transcriptional activator binds antioxidant response elements (ARE) of target gene promoter regions to regulate expression of oxidative stress response genes. Under basal conditions, the NRF2 inhibitor INrf2 (also called KEAP1) binds and retains NRF2 in the cytoplasm where it can be targeted for ubiquitin-mediated degradation. Small amounts of constitutive nuclear NRF2 maintains cellular homeostasis through regulation of basal expression of antioxidant response genes. Following oxidative or electrophilic stress, KEAP1 releases NRF2, thereby allowing the activator to translocate to the nucleus and bind to ARE-containing genes. The coordinated action of NRF2 and other transcription factors mediates the response to oxidative stress. Altered expression of NRF2 is associated with chronic obstructive pulmonary disease (COPD). NRF2 activity in lung cancer cell lines directly correlates with cell proliferation rates, and inhibition of NRF2 expression by siRNA enhances anti-cancer drug-induced apoptosis. The NRF2 repressor KEAP1 contains an amino terminal BTB/POZ domain and a carboxyl terminal KELCH domain. The KELCH domain is required for interacting with NRF2 and the BTB/POZ domain functions in binding Cul3 E3 ubiquitin ligase. Under normal conditions, the complex leads to the cytoplasmic sequestration and ubiquitin-mediated proteasomal degradation of NRF2. Electrophilic modification of KEAP1 leads to disassociation of the NRF2/KEAP1 complex. KEAP1 also targets the down regulation of NF- κ B activity by targeting IKK γ degradation.

Synonyms:

INrf2; KLHL19

Protein Families:

Transcription Factors

Protein Pathways:

Ubiquitin mediated proteolysis

Product images:

Predicted band size: 70 kDa. Positive control: Jurkat cell lysate. Recommended dilution: 1/500-2000. (Gel: 8%SDS-PAGE Lysate: 40 ug Primary antibody: 1/500 dilution Secondary antibody: Goat anti Rabbit IgG - H&L (HRP) at 1/10000 dilution Exposure time: 1 minute)