

**NRF2 (aa445-458) Antibody (internal region)**  
Peptide-affinity purified goat antibody  
Catalog # AF3595a

**Specification**

**NRF2 (aa445-458) Antibody (internal region) - Product Information**

Application	WB
Primary Accession	<a href="#">Q16236</a>
Other Accession	<a href="#">NP_006155.2</a> , <a href="#">NP_001138884.1</a> , <a href="#">NP_001138885.1</a> , <a href="#">4780</a> , <a href="#">18024</a> (mouse), <a href="#">83619</a> (rat)
Reactivity Predicted	Human Mouse, Rat, Pig, Dog, Cow
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	67827

**NRF2 (aa445-458) Antibody (internal region) - Additional Information**

**Gene ID** 4780

**Other Names**

Nuclear factor erythroid 2-related factor 2, NF-E2-related factor 2, NFE2-related factor 2, HEBP1, Nuclear factor, erythroid derived 2, like 2, NFE2L2, NRF2

**Format**

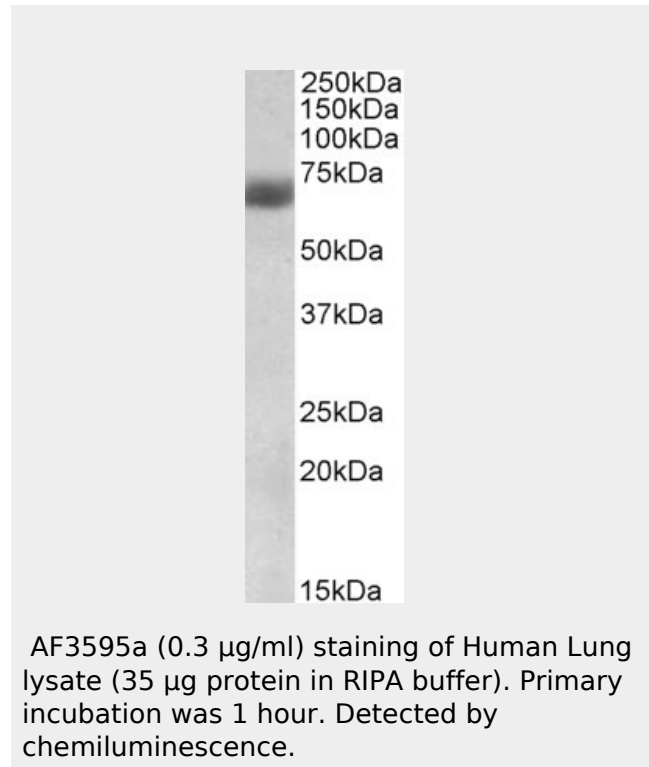
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

NRF2 (aa445-458) Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.



**NRF2 (aa445-458) Antibody (internal region) - Background**

This antibody is expected to recognize all reported isoforms (NP\_006155.2; NP\_001138884.1; NP\_001138885.1).

**NRF2 (aa445-458) Antibody (internal region) - References**

Keap1 represses nuclear activation of antioxidant responsive elements by Nrf2 through binding to the amino-terminal Neh2 domain. Itoh K, Wakabayashi N, Katoh Y, Ishii T, Igarashi K, Engel JD, Yamamoto M. *Genes Dev.* 1999 Jan 1;13(1):76-86. PMID: 9887101

**NRF2 (aa445-458) Antibody (internal region) -  
Protein Information****Name** NFE2L2

{ECO:0000303|PubMed:29018201,  
ECO:0000312|HGNC:HGNC:7782}

**Function**

Transcription factor that plays a key role in the response to oxidative stress: binds to antioxidant response (ARE) elements present in the promoter region of many cytoprotective genes, such as phase 2 detoxifying enzymes, and promotes their expression, thereby neutralizing reactive electrophiles (PubMed:<a href="http://www.uniprot.org/citations/11035812" target="\_blank">11035812</a>, PubMed:<a href="http://www.uniprot.org/citations/19489739" target="\_blank">19489739</a>, PubMed:<a href="http://www.uniprot.org/citations/29018201" target="\_blank">29018201</a>, PubMed:<a href="http://www.uniprot.org/citations/31398338" target="\_blank">31398338</a>). In normal conditions, ubiquitinated and degraded in the cytoplasm by the BCR(KEAP1) complex (PubMed:<a href="http://www.uniprot.org/citations/11035812" target="\_blank">11035812</a>, PubMed:<a href="http://www.uniprot.org/citations/15601839" target="\_blank">15601839</a>, PubMed:<a href="http://www.uniprot.org/citations/29018201" target="\_blank">29018201</a>). In response to oxidative stress, electrophile metabolites inhibit activity of the BCR(KEAP1) complex, promoting nuclear accumulation of NFE2L2/NRF2, heterodimerization with one of the small Maf proteins and binding to ARE elements of cytoprotective target genes (PubMed:<a href="http://www.uniprot.org/citations/19489739" target="\_blank">19489739</a>, PubMed:<a href="http://www.uniprot.org/citations/29590092" target="\_blank">29590092</a>). The NFE2L2/NRF2 pathway is also activated in response to selective autophagy: autophagy promotes interaction between KEAP1 and SQSTM1/p62 and subsequent inactivation of the BCR(KEAP1) complex, leading to NFE2L2/NRF2 nuclear

accumulation and expression of cytoprotective genes (PubMed:<a href="http://www.uniprot.org/citations/20452972" target="\_blank">20452972</a>). May also be involved in the transcriptional activation of genes of the beta-globin cluster by mediating enhancer activity of hypersensitive site 2 of the beta-globin locus control region (PubMed:<a href="http://www.uniprot.org/citations/7937919" target="\_blank">7937919</a>).

#### **Cellular Location**

Cytoplasm, cytosol. Nucleus {ECO:0000255|PROSITE-ProRule:PRU00978, ECO:0000269|PubMed:11035812, ECO:0000269|PubMed:15601839, ECO:0000269|PubMed:21196497} Note=Cytosolic under unstressed conditions: ubiquitinated and degraded by the BCR(KEAP1) E3 ubiquitin ligase complex (PubMed:15601839, PubMed:21196497). Translocates into the nucleus upon induction by electrophilic agents that inactivate the BCR(KEAP1) E3 ubiquitin ligase complex (PubMed:21196497).

#### **Tissue Location**

Widely expressed. Highest expression in adult muscle, kidney, lung, liver and in fetal muscle

### **NRF2 (aa445-458) Antibody (internal region) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)