DATASHEET

Nrf2 Rabbit Monoclonal Antibody(ARA488)

CAT. NO. ARA5802

KEY FEATURES

Target	Nrf2	**Source / Host**	Rabbit
Reactivity	Human, Mouse, Rat	**Clonality**	Monoclonal
Applications	WB,IF/ICC,ChIP	**Conjugation**	Unconjugated
Isotype	IgG	**Storage**	at -20°C

BACKGROUND

Nuclear factor erythroid 2-related factor 2 (NRF2), also known as nuclear factor erythroid-derived 2-like 2, is a transcription factor encoded by the NFE2L2 gene. NRF2 is a basic leucine zipper (bZIP) protein that regulates the expression of antioxidant proteins protecting against oxidative damage triggered by injury and inflammation. In vitro, NRF2 binds to antioxidant response elements (AREs) in the promoter regions of genes encoding cytoprotective proteins, induces heme oxygenase 1 expression and inhibits the NLRP3 inflammasome. NRF2 participates in a complex regulatory network and performs pleiotropic roles in the regulation of metabolism, inflammation, autophagy, proteostasis, mitochondrial physiology and immune responses. Several drugs that stimulate the NFE2L2 pathway are being studied for the treatment of diseases caused by oxidative stress.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:2,000
IF/ICC	1:100
ChIP	0.5-2 μg per 25 μg of chromatin

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

OVERVIEW

Description	Rabbit monoclonal antibody to Nrf2 for WB, IF/ICC and ChIP.
Specificity	Recognizes endogenous levels of Nrf2 protein.
Immunogen	Recombinant protein within human Nrf2 aa 51-350.
Molecular Weight	Predicted: 68 kDa; Observed: 100 kDa
Purification	Protein A affinity purification
Isotype	IgG
Form/Buffer	Liquid in PBS (pH 7.4) with 0.1% BSA, 40% glycerol and 0.2% ProClean 950.
Subcellular Location	Cytoplasm, cytosol, Nucleus.
Alternative Names	Nrf2, NFE2L2, Nuclear factor erythroid 2-related factor 2, NF-E2-related factor 2, NFE2 related factor 2, Nuclear factor erythroid derived 2 like 2, HEBP1
Gene Symbol	NFE2L2
Entrez Gene	4780
SwissProt	Q16236

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

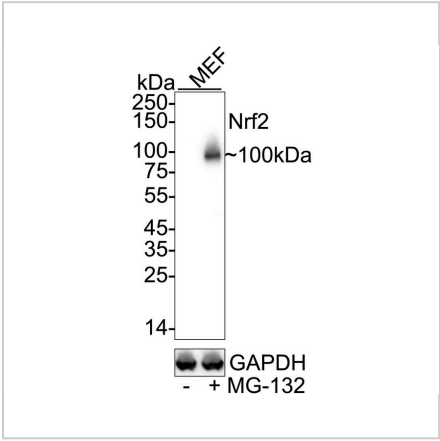
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

DATASHEET

Nrf2 Rabbit Monoclonal Antibody(ARA488)

CAT. NO. ARA5802

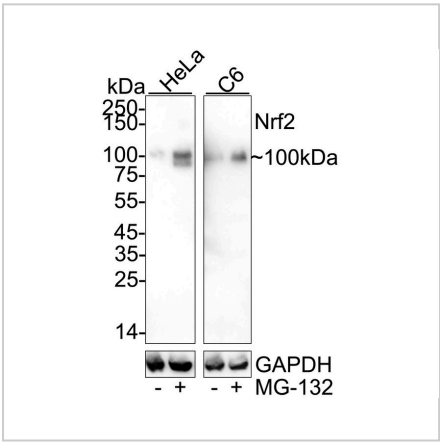
DATA



Western blot analysis of Nrf2 on different lysates with Nrf2 Rabbit Monoclonal Antibody(ARA488) at 1:2,000 dilution.

Lane 1: MEF whole cell lysate
Lane 2: MEF treated with 10 µM MG-132 for 8 hours whole cell lysate

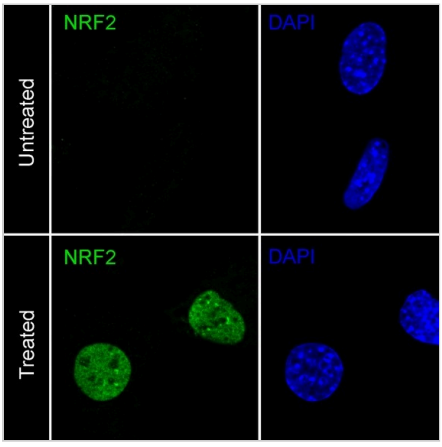
Lysates/proteins at 20 µg/lane.
Predicted band size: 68 kDa
Observed band size: 100 kDa



Western blot analysis of Nrf2 on different lysates with Nrf2 Rabbit Monoclonal Antibody(ARA488) at 1:2,000 dilution.

Lane 1: HeLa whole cell lysate
Lane 2: HeLa treated with 2 µM MG-132 for 18 hours whole cell lysate
Lane 3: C6 whole cell lysate
Lane 4: C6 treated with 25 µM MG-132 for 4 hours whole cell lysate

Lysates/proteins at 20 µg/lane.
Predicted band size: 68 kDa
Observed band size: 100 kDa

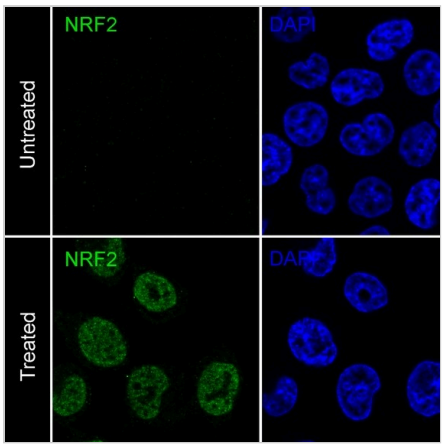


Immunofluorescent analysis of MEF cells untreated / treated with 2 µM MG-132 for 18 hours using Nrf2 Rabbit Monoclonal Antibody(ARA488) at 1:100 dilution and AREX® Fluor 488-conjugated Goat Anti-Rabbit IgG (H+L). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Nuclear DNA was labeled with DAPI (blue).

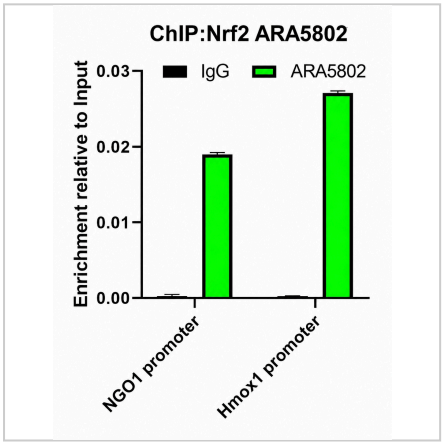
DATASHEET

Nrf2 Rabbit Monoclonal Antibody(ARA488)

CAT. NO. ARA5802



Immunofluorescent analysis of HCT 116 cells untreated / treated with 25 μM MG-132 for 4 hours using Nrf2 Rabbit Monoclonal Antibody(ARA488) at 1:100 dilution and AREX® Fluor 488-conjugated Goat Anti-Rabbit IgG (H+L). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. Nuclear DNA was labeled with DAPI (blue).



Chromatin immunoprecipitation was performed with cross-linked chromatin from MEF cells treated with 10 μM MG-132 for 8 hours using Nrf2 Rabbit Monoclonal Antibody(ARA488) or Normal Rabbit IgG according to the ChIP protocol. The enriched DNA was quantified by real-time PCR using indicated primers (NGO1 promoter and Hmox1 promoter). The amount of immunoprecipitated DNA in each sample is represented as signal relative to the total amount of input chromatin, which is equivalent to one.

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.

More information: www.arexbio.com