

# Anti-Nrf2 Antibody

## R1312-8



<b>Product Type:</b>	Rabbit polyclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IF-Cell
<b>Molecular Wt:</b>	Predicted band size: 68 kDa

**Description:** The Nrf2 antioxidant response pathway is "the primary cellular defense against the cytotoxic effects of oxidative stress." Among other effects, NFE2L2 increases the expression of several antioxidant enzymes. Several drugs that stimulate the NFE2L2 pathway are being studied for treatment of diseases that are caused by oxidative stress, and dimethyl fumarate significantly reduced the progression of disability in multiple sclerosis. Under normal or unstressed conditions, Nrf2 is kept in the cytoplasm by a cluster of proteins that degrade it quickly. Under oxidative stress, Nrf2 is not degraded, but instead travels to the nucleus where it binds to a DNA promoter and initiates transcription of antioxidative genes and their proteins.

**Immunogen:** Synthetic peptide within C-terminal human Nrf2.

**Positive control:** Raji cell lysates, Hela.

**Subcellular location:** Cytoplasm, Nucleus

**Database links:** SwissProt Q16236 Human | Q60795 Mouse | O54968 Rat

**Recommended Dilutions:**

<b>WB</b>	1:1000-1:2000
<b>IF-Cell</b>	1:100

**Storage Buffer:** 1\*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% SodiumAzide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

**Purity:** Immunogen affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

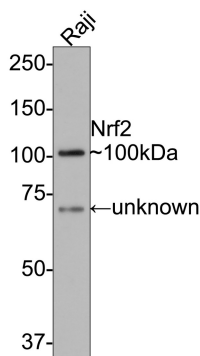
Technical:0086-571-89986345

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## Images

**Fig1:** Western blot analysis of Nrf2 on Raji cell lysates with Rabbit anti-Nrf2 antibody (R1312-8) at 1/500 dilution.



Lysates/proteins at 10 µg/Lane.

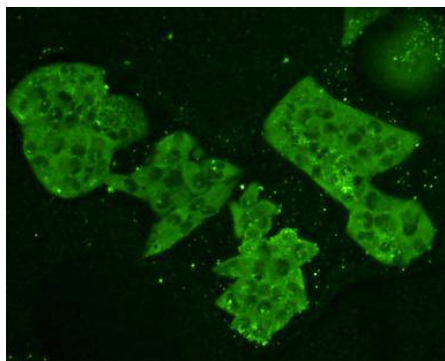
Predicted band size: 68 kDa

Observed band size: 100/70 kDa

Exposure time: 2 minutes;

8% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDm/TBST for 1 hour at room temperature. The primary antibody (R1312-8) at 1/500 dilution was used in 5% NFDm/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.



**Fig2:** ICC staining Nrf2 in HeLa cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

### Background References

1. "Structure of the Keap1:Nrf2 interface provides mechanistic insight into Nrf2 signaling." Lo S.-C., Li X., Henzl M.T., Beamer L.J., Hannink M. EMBO J. 25:3605-3617(2006)
2. "Acetylation-deacetylation of the transcription factor Nrf2 (nuclear factor erythroid 2-related factor 2) regulates its transcriptional activity and nucleocytoplasmic localization." Kawai Y., Garduno L., Theodore M., Yang J., Arinze I.J. J. Biol. Chem. 286:7629-7640(2011)
3. "Transformation of eEF1Bdelta into heat-shock response transcription factor by alternative splicing." Kaitsuka T., Tomizawa K., Matsushita M. EMBO Rep. 12:673-681(2011)

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