Product Data Sheet

Purified anti-NRF2

Catalog # / Size:	5296010 / 100 µg 5296005 / 25 µg
Clone:	W19086B
Isotype:	Rat IgG2a, κ
Immunogen:	Partial recombinant human NRF2 protein
Reactivity:	Human, Mouse
Preparation:	The antibody was purified by affinity chromatography.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide
Concentration:	0.5 mg/mL

Whole cell lysates (15 µg) from untreated (-) or MG-132 treated (+) (10 µM, 10 hours) HeLa cells were resolved by 4-12% Bis-Tris gel electrophoresis, transferred to a PVDF membrane and probed with 1.0 µg/mL (1:500 dilution) of purified anti-NRF2 antibody (clone W19086B) overnight at 4°C. Proteins were visualized by chemiluminescence detection using HRP goat anti-rat IgG antibody (Cat. No. 405422) at a 1:3000 dilution. Direct-Blot™ HRP anti-GAPDH antibody (Cat. No. 607904) was used as a loading control at a 1:50000 dilution (lower). Lane M: Molecular weight marker.

Untreated (panel A) or MG-132 treated (panel B) (10 µM, 10 hours) HeLa cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with methanol for 10 minutes, and blocked with 5% FBS for 30 minutes. Cells were then intracellularly stained wi

Applications:

Applications:	Intracellular Staining for Flow Cytometry, Immunocytochemistry
Recommended Usage:	Each lot of this antibody is quality control tested by western blotting. For western blotting, the suggested use of this reagent is 1.0 µg/mL. For immunocytochemistry, a concentration range of 1.0 - 5.0 µg/mL is recommended. For immunoprecipitation, the suggested use of this reagent is 2.5 µg/test. For immunohistochemistry, a concentration range of 5.0 - 20.0 µg/mL is suggested. For intracellular flow cytometric staining, the suggested use of this reagent is ≤ 0.125 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes:	This clone was tested for ICC on 4% PFA-fixed HeLa cells and permeabilized with either methanol or Triton X-100. Both permeabilization methods were compatible with NRF2 staining.

Application References:

1. Waldschmidt TJ, *et al.* 1988. *J. Immunol.* 140:2148. (IP)
2. Rao M, *et al.* 1987. *J. Immunol.* 138:1845. (Block)
3. Oshiba A, *et al.* 1997. *J. Immunol.* 159:4056. (Block)
4. Dasic G, *et al.* 1999. *Eur. J. Immunol.* 29:2957. (Block)
5. Maeda K, *et al.* 1992. *J. Immunol.* 148:2340. (IHC)
6. Craig VJ, *et al.* 2011. *Cancer Res.* 71:3616. PubMed

Description: NRF2 is a transcription factor that plays a critical role in inducing expression of genes required for oxidative stress defense and stress balance. It does so by binding to antioxidant response elements (AREs), which are located upstream of target genes. NRF2 is degraded by ubiquitination of KEAP1 E3 ligase. In a clinical setting, NRF2 is frequently activated in many types of cancers; it drives metabolic adaptation and survival in ROS-rich tumor microenvironments.

Antigen References:

1. M. da Costa R, *et al.* 2019. *Front In Pharm.* 10:3389.
2. Shoemaker A. 2017. *Sci Trans Med.* 9:420.
3. Robledinos-Antón N, *et al.* 2019. *Hindawi.* 10:1155.
4. Cuadrado A, *et al.* 2019. *Nat Rev Drug Discov.* 18:295-317.