

Datasheet for ABIN3044020 anti-NRF1 antibody (Middle Region)



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6 Images

1 Publication

Overview

Quantity:	100 µg
Target:	NRF1
Binding Specificity:	AA 272-288, Middle Region
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC)

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Nuclear respiratory factor 1(NRF1) detection. Tested with WB, IHC-P, ICC in Human,Mouse,Rat.
Immunogen:	A synthetic peptide corresponding to a sequence in the middle region of human NRF1(272-288aa QHGREDLLYAFEDQQTQ), identical to the related rat and mouse sequences.
Sequence:	QHGREDDLLYA FEDQQTQ
Isotype:	IgG
Cross-Reactivity (Details):	Predicted Cross Reactivity: mouse No cross reactivity with other proteins. Predicted Cross Reactivity: Species predicted to be fit for the product based on sequence similarities.
Characteristics:	Rabbit IgG polyclonal antibody for Nuclear respiratory factor 1(NRF1) detection. Tested with

Product Details

WB, IHC-P, ICC in Human, Mouse, Rat.
Gene Name: nuclear respiratory factor 1
Protein Name: Nuclear respiratory factor 1

Purification: Immunogen affinity purified.

Target Details

Target: NRF1

Alternative Name: NRF1 ([NRF1 Products](#))

Background: NRF1 (Nuclear Respiratory Factor 1), also known as Alpha-Pal. Gopalakrishnan and Scarpulla (1995) analyzed DNA from a panel of human/hamster cell hybrids using human-specific NRF1 PCR primers and localized the NRF1 gene to human chromosome 7. The assignment was further refined to 7q31 by cohybridization of NRF1- and chromosome 7-specific probes to human metaphase chromosomes. Efiok et al. (1994) identified genes containing alpha-Pal-binding sequences and found that these could be classified either as cellular proliferation genes, or as genes regulating the growth-responsive metabolic pathways of energy transduction, translation, and replication. Virbasius and Scarpulla (1994) noted that the nuclear-encoded mitochondrial transcription factor TFAM contains potential binding sites for NRF1, NRF2 (GABPA) and SP1 within the promoter region. With use of binding and electrophoretic mobility shift assays, DNase footprinting, and mutation analysis of recombinant proteins, they demonstrated specific and functional binding of NRF1 and NRF2 to the TFAM promoter region.

Synonyms: alpha pal antibody|alpha palindromic binding protein antibody|Alpha palindromic-binding protein antibody|Alpha-pal antibody|locus control region factor 1 antibody|NFE2 related factor 1 antibody|NRF-1 antibody|Nrf1 antibody|NRF1_HUMAN antibody|nuclear factor (erythroid derived 2)-like 1 antibody|nuclear respiratory factor 1 antibody|transcription factor 11 antibody

UniProt: [Q16656](#)

Pathways: [Regulation of Lipid Metabolism by PPARalpha](#)

Application Details

Application Notes: WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, Rat, Predicted Species: Mouse, The detection limit for NRF1 is approximately 2.5 ng/lane under reducing conditions.

Application Details

IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Rat, Predicted Species: Mouse, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.

ICC: Concentration: 0.5-1 µg/mL, Tested Species: Human, Predicted Species: Mouse, Rat

Notes: Tested Species: Species with positive results. Predicted Species: Species predicted to be fit for the product based on sequence similarities. Other applications have not been tested.

Optimal dilutions should be determined by end users.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P) and ICC.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Thimerosal, 0.05 mg Sodium azide.

Preservative: Thimerosal (Merthiolate), Sodium azide

Precaution of Use: This product contains Sodium azide and Thimerosal (Merthiolate): POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C/-20 °C

Storage Comment: At -20°C for one year. After reconstitution, at 4°C for one month.
It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Expiry Date: 12 months

Publications

Product cited in: Mao, Lu, Wang, Tian, Huang, Feng, Zhang, Chang: "Role of PI3K p110β in the differentiation of human embryonic stem cells into islet-like cells." in: **Biochemical and biophysical research communications**, Vol. 488, Issue 1, pp. 109-115, (2017) ([PubMed](#)).

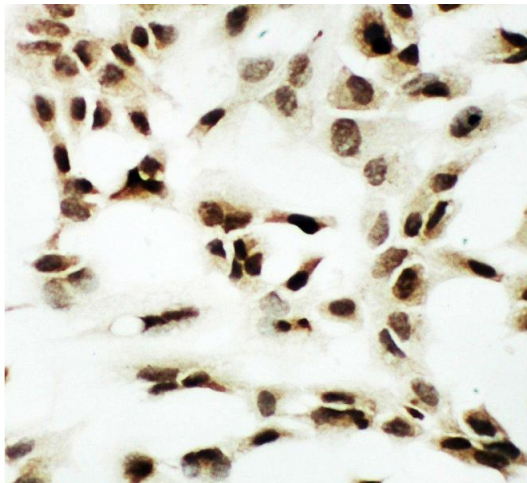
Wang, Zhou, Zhang, Wu, Zhang, Zhang: "Identification and localization of gastrointestinal hormones in the skin of the bullfrog *Rana catesbeiana* during periods of activity and hibernation." in: **Acta histochemica**, Vol. 116, Issue 8, pp. 1418-26, (2014) ([PubMed](#)).

Chen, He, Peng, Liu, Jin, Cao, Wang, Xiao: "An immunohistochemical study of somatostatin in the stomach and the small intestine of the African ostrich (*Struthio camelus*)." in: **Tissue & cell**, Vol. 45, Issue 6, pp. 363-6, (2013) ([PubMed](#)).

Jiang, Deng, Duan, Chen, Xiang, Lu, Ma: "Somatostatin receptors SSTR2 and SSTR5 are expressed in the human thoracic duct." in: **Lymphology**, Vol. 44, Issue 1, pp. 21-8, (2011) ([PubMed](#)).

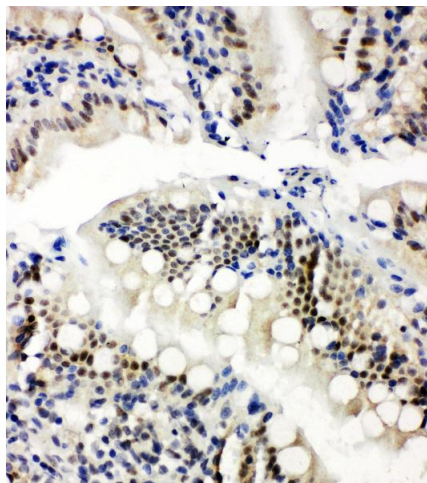
Zong, Chen, Zhang, Zou: "Effects of intra-gastric beta-casomorphin-7 on somatostatin and gastrin gene expression in rat gastric mucosa." in: **World journal of gastroenterology**, Vol. 13, Issue 14, pp. 2094-9, (2007) ([PubMed](#)).

Validation report #300031 for Immunohistochemistry (IHC)



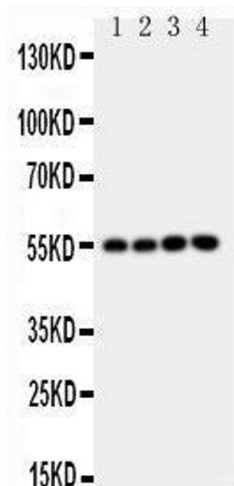
Immunohistochemistry

Image 1. Anti-NRF1 antibody, ICC ICC: A549 Cell



Immunohistochemistry

Image 2. Anti-NRF1 antibody, IHC(P) IHC(P): Rat Intestine Tissue



Western Blotting

Image 3. Anti-NRF1 antibody, Western blotting Lane 1: Rat Brain Tissue Lysate Lane 2: Rat Kidney Tissue Lysate Lane 3: MCF-7 Cell Lysate Lane 4: A549 Cell Lysate

Please check the [product details page](#) for more images. Overall 6 images are available for ABIN3044020.