10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-NRF1 Antibody
Catalog # ABO11253

Specification

Anti-NRF1 Antibody - Product Information

Application	**WB, IHC-P, ICC**
Primary Accession	Q16656
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Nuclear respiratory factor 1(NRF1) detection. Tested with WB, IHC-P, ICC in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-NRF1 Antibody - Additional Information

Gene ID 4899

Other Names
Nuclear respiratory factor 1, NRF-1, Alpha palindromic-binding protein, Alpha-pal, NRF1

Calculated MW
53541 MW KDa

Application Details
Immunocytochemistry , 0.5-1 µg/ml, Human, Mouse, Rat
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Rat, Mouse, By Heat
Western blot, 0.1-0.5 µg/ml, Human, Rat, Mouse

Subcellular Localization
Nucleus.

Tissue Specificity
Ubiquitously expressed with strongest expression in skeletal muscle.

Protein Name
Nuclear respiratory factor 1

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.

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.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage

At -20˚C for one year. After r˚Constitution, 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.

Sequence Similarities
Belongs to the NRF1/Ewg family.

Anti-NRF1 Antibody - Protein Information

Name NRF1

Function
Transcription factor that activates the expression of the EIF2S1 (EIF2-alpha) gene. Links the transcriptional modulation of key metabolic genes to cellular growth and development. Implicated in the control of nuclear genes required for respiration, heme biosynthesis, and mitochondrial DNA transcription and replication.

Cellular Location
Nucleus.

Tissue Location
Ubiquitously expressed with strongest expression in skeletal muscle

Anti-NRF1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-NRF1 Antibody - Images

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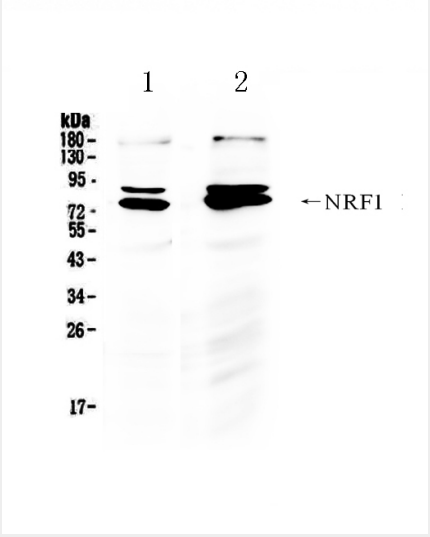
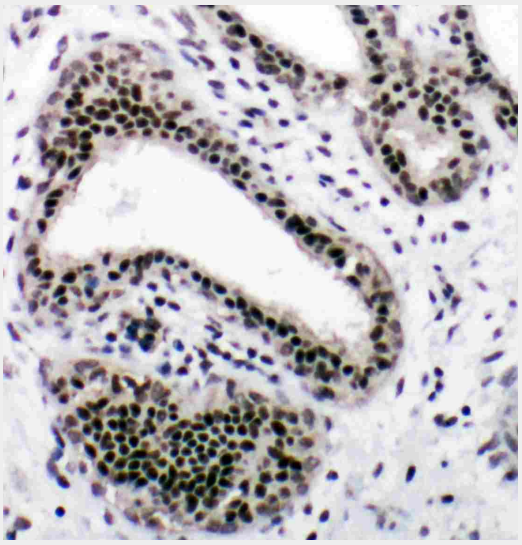
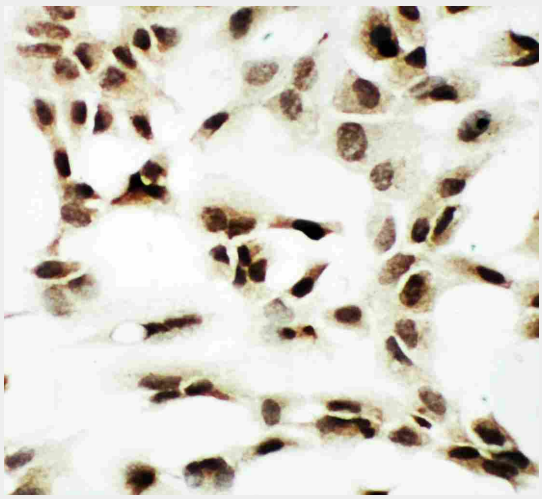


All lanes: Anti NRF1 (ABO11253) at 0.5ug/mlLane 1: U2OS Whole Cell Lysate at 40ugLane 2: HELA Whole Cell Lysate at 40ugPredicted bind size: 75KDObserved bind size: 75KD



Anti-NRF1 antibody, ABO11253, IHC(P)IHC(P): Human Mammary Cancer Tissue



Anti-NRF1 antibody, ABO11253, ICCICC: A549 Cell

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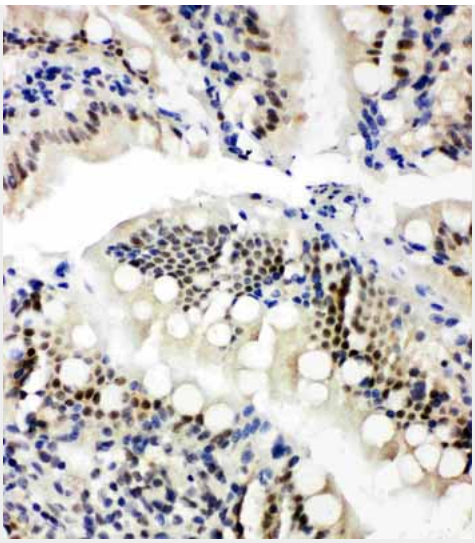
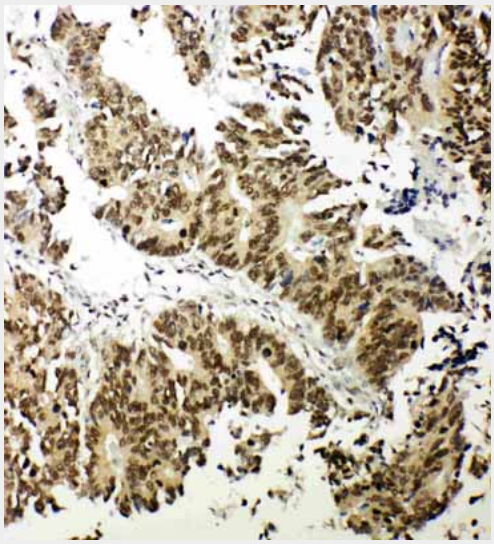


Anti-NRF1 antibody, ABO11253, IHC(P)IHC(P): Rat Intestine Tissue



Anti-NRF1 antibody, ABO11253, IHC(P)IHC(P): Human Intestinal Cance Tissue

Anti-NRF1 Antibody - 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.