

### NURR1 (NR4A2) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP6412a

# **Specification**

### NURR1 (NR4A2) Antibody (N-term) - Product Information

Application WB, IF, IHC-P,E

Primary Accession P43354

Other Accession <u>Q07917</u>, <u>Q06219</u>, <u>Q08E53</u>

Reactivity
Predicted
Bovine, Rat
Host
Clonality
Polyclonal
Isotype
Rabbit IgG
Antigen Region
Antigen Region
Bovine, Rat
Rabbit
Rabbit
Polyclonal
Rabbit IgG

# NURR1 (NR4A2) Antibody (N-term) - Additional Information

#### **Gene ID 4929**

### **Other Names**

Nuclear receptor subfamily 4 group A member 2, Immediate-early response protein NOT, Orphan nuclear receptor NURR1, Transcriptionally-inducible nuclear receptor, NR4A2, NOT, NURR1, TINUR

### Target/Specificity

This NURR1 (NR4A2) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 13-42 amino acids from the N-terminal region of human NURR1 (NR4A2).

#### **Dilution**

WB~~1:1000 IF~~1:10~50 IHC-P~~1:50~100

E~~Use at an assay dependent concentration.

### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

# **Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

NURR1 (NR4A2) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

# NURR1 (NR4A2) Antibody (N-term) - Protein Information





### Name NR4A2

# Synonyms NOT, NURR1, TINUR

**Function** Transcriptional regulator which is important for the differentiation and maintenance of meso-diencephalic dopaminergic (mdDA) neurons during development (PubMed: 15716272, PubMed: 17184956). It is crucial for expression of a set of genes such as SLC6A3, SLC18A2, TH and DRD2 which are essential for development of mdDA neurons (By similarity).

### **Cellular Location**

Cytoplasm. Nucleus. Note=Mostly nuclear; oxidative stress promotes cytoplasmic localization

#### **Tissue Location**

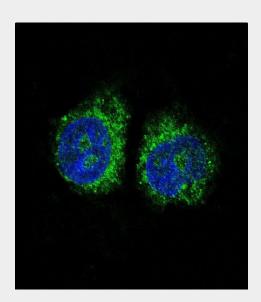
Expressed in a number of cell lines of T-cell, B- cell and fibroblast origin. Strong expression in brain tissue

# NURR1 (NR4A2) Antibody (N-term) - Protocols

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

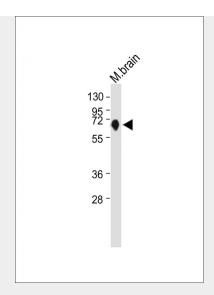
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# NURR1 (NR4A2) Antibody (N-term) - Images

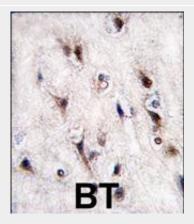


Confocal immunofluorescent analysis of NURR1 (NR4A2) Antibody (N-term) (Cat#AP6412a) with Hela cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).





Anti-NURR1 (NR4A2) Antibody (N-term) at 1:1000 dilution + Mouse brain whole tissue lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 67 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human brain tissue reacted with NURR1 (NR4A2) antibody (N-term)(Cat#AP6412a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

# NURR1 (NR4A2) Antibody (N-term) - Background

Parkinson's disease (PD) is a multifactorial disease that appears to arise from the effects of both genetic and environmental influences. The known genetic factors include multiple genes that have been identified in related parkinsonian syndromes, as well as alpha-synuclein. Genes associated with either PD or Parkinson-related disorders include parkin, DJ-1, ubiquitin C-terminal hydrolase isozyme L1 (UCH-L1), nuclear receptor-related factor 1 (NURR1), and alpha-synuclein. Nurr1 is a transcription factor that is expressed in the embryonic ventral midbrain and is critical for the development of dopamine (DA) neurons. It belongs to the conserved family of nuclear receptors but lacks an identified ligand and is therefore referred to as an orphan receptor. RXR ligands can promote the survival of DA neurons via a process that depends on Nurr1-RXR heterodimers. In developing DA cells, Nurr1 is required for the expression of several genes important for DA synthesis and function. Nurr1 is also important for the maintenance of adult DA neurons.

# NURR1 (NR4A2) Antibody (N-term) - References

Perlmann T, et al. Cell Tissue Res. 318(1):45-52 (2004) Hsu HC,et al. Curr Drug Targets Inflamm





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Allergy. 3(4):413-23 (2004) Wallen-Mackenzie A, et al. Genes Dev. 17(24):3036-47 (2003) Ichinose, H., et al. Gene 230 (2), 233-239 (1999) Okabe, T., et al. J. Immunol. 154 (8), 3871-3879 (1995) Mages, H.W., et al. Mol. Endocrinol. 8 (11), 1583-1591 (1994)

NURR1 (NR4A2) Antibody (N-term) - Citations

• Schizophrenia-like features in transgenic mice overexpressing human HO-1 in the astrocytic compartment.