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NURR1 (NR4A2) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6412a

Product Information

Application	WB, IHC-P, IF, E
Primary Accession	P43354
Other Accession	Q07917, Q06219, Q08E53
Reactivity	Human, Mouse, Rat
Predicted	Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB7385
Calculated MW	66591
Antigen Region	13-42

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 IHC-P~~1:100~500 IF~~1:10~50 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.

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

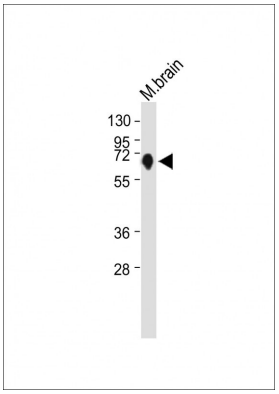
Background

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.

References

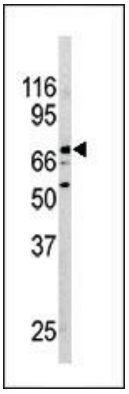
Perlmann T, et al. Cell Tissue Res. 318(1):45-52 (2004) Hsu HC,et al. Curr Drug Targets Inflamm Allergy. 3(4):413-23 (2004) Wallen-Mackenzie A, et al. Genes Dev. 17(24):3036-47 (2003) Ichinose,H., et al. Gene 230 (2), 233-239 (1999) Okabe,T., et al. J. Immunol. 154 (8), 3871-3879 (1995) Mages,H.W., et al. Mol. Endocrinol. 8 (11), 1583-1591 (1994)

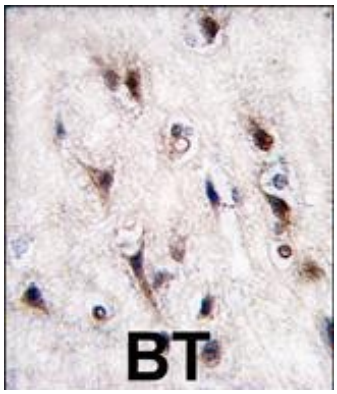
Images



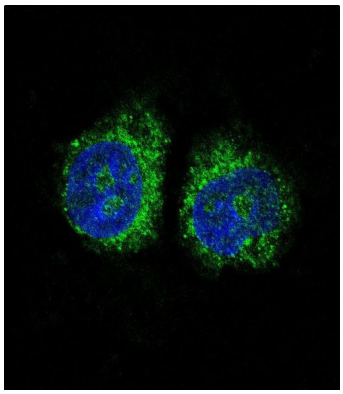
Anti-NURR1 (NR4A2) Antibody (N-term) at 1:1000 dilution + Mouse brain whole tissue lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 67 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

Western blot analysis of anti-NURR1(NR4A2) Pab (Cat. #AP6412a) in mouse brain tissue lysate. NURR1(NR4A2) (arrow) was detected using the purified Pab.

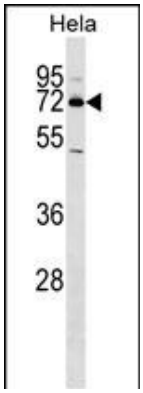




Formalin-fixed and paraffin-embedded human brain tissue reacted with NURR1 (NR4A2) antibody (N-term)(Cat#AP6412a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not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



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).



NR4A2 Antibody (N-term) (Cat. #AP6412a) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the NR4A2 antibody detected the NR4A2 protein (arrow).

Citations

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