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NR4A3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16045b

Product Information

Application	WB, E
Primary Accession	Q92570
Other Accession	NP_775292.1, NP_008912.2, NP_775291.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35274
Calculated MW	68230
Antigen Region	553-582

Additional Information

Gene ID	8013
Other Names	Nuclear receptor subfamily 4 group A member 3, Mitogen-induced nuclear orphan receptor, Neuron-derived orphan receptor 1, Nuclear hormone receptor NOR-1, NR4A3, CHN, CSMF, MINOR, NOR1, TEC
Target/Specificity	This NR4A3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 553-582 amino acids from the C-terminal region of human NR4A3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	NR4A3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NR4A3
Function	Transcriptional activator that binds to regulatory elements in promoter

	regions in a cell- and response element (target)-specific manner. Induces gene expression by binding as monomers to the NR4A1 response element (NBRE) 5'-AAAAGGTCA-3' site and as homodimers to the Nur response element (NurRE) site in the promoter of their regulated target genes (By similarity). Plays a role in the regulation of proliferation, survival and differentiation of many different cell types and also in metabolism and inflammation. Mediates proliferation of vascular smooth muscle, myeloid progenitor cell and type B pancreatic cells; promotes mitogen-induced vascular smooth muscle cell proliferation through transactivation of SKP2 promoter by binding a NBRE site (By similarity). Upon PDGF stimulation, stimulates vascular smooth muscle cell proliferation by regulating CCND1 and CCND2 expression. In islets, induces type B pancreatic cell proliferation through up-regulation of genes that activate cell cycle, as well as genes that cause degradation of the CDKN1A (By similarity). Negatively regulates myeloid progenitor cell proliferation by repressing RUNX1 in a NBRE site-independent manner. During inner ear, plays a role as a key mediator of the proliferative growth phase of semicircular canal development (By similarity). Also mediates survival of neuron and smooth muscle cells; mediates CREB-induced neuronal survival, and during hippocampus development, plays a critical role in pyramidal cell survival and axonal guidance. Is required for S phase entry of the cell cycle and survival of smooth muscle cells by inducing CCND1, resulting in RB1 phosphorylation. Binds to NBRE motif in CCND1 promoter, resulting in the activation of the promoter and CCND1 transcription (By similarity). Also plays a role in inflammation; upon TNF stimulation, mediates monocyte adhesion by inducing the expression of VCAM1 and ICAM1 by binding to the NBRE consensus site (By similarity) (PubMed:20558821). In mast cells activated by Fc-epsilon receptor cross-linking, promotes the synthesis and release of cytokines but impairs events leading to degranulation (By similarity). Also plays a role in metabolism; by modulating feeding behavior; and by playing a role in energy balance by inhibiting the glucocorticoid-induced orexigenic neuropeptides AGRP expression, at least in part by forming a complex with activated NR3C1 on the AGRP- glucocorticoid response element (GRE), and thus weakening the DNA binding activity of NR3C1. Upon catecholamines stimulation, regulates gene expression that controls oxidative metabolism in skeletal muscle (By similarity). Plays a role in glucose transport by regulating translocation of the SLC2A4 glucose transporter to the cell surface (PubMed:24022864). Finally, during gastrulation plays a crucial role in the formation of anterior mesoderm by controlling cell migration. Inhibits adipogenesis (By similarity). Also participates in cardiac hypertrophy by activating PARP1 (By similarity).
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00407}.
Tissue Location	Isoform alpha is highly expressed in skeletal muscle. Isoform beta is highly expressed in skeletal muscle and low expressed in fetal brain and placenta

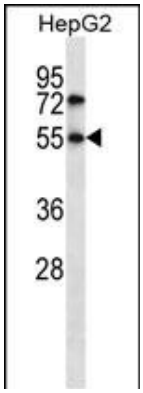
Background

This gene encodes a member of the steroid-thyroid hormone-retinoid receptor superfamily. The encoded protein may act as a transcriptional activator. The protein can efficiently bind the NGFI-B Response Element (NBRE). Three different versions of extraskeletal myxoid chondrosarcomas (EMCs) are the result of reciprocal translocations between this gene and other genes. The translocation breakpoints are associated with Nuclear Receptor Subfamily 4, Group A, Member 3 (on chromosome 9) and either Ewing Sarcome Breakpoint Region 1 (on chromosome 22), RNA Polymerase II, TATA Box-Binding Protein-Associated Factor, 68-KD (on chromosome 17), or Transcription factor 12 (on chromosome 15). Multiple transcript variants encoding different isoforms have been found for this gene.

References

Novak, G., et al. Genes Brain Behav. 9(8):910-917(2010)
Zhao, Y., et al. Circ. Res. 107(4):501-511(2010)
Borup, R., et al. Endocr. Relat. Cancer 17(3):691-708(2010)
Thompson, J., et al. Eur. J. Immunol. 40(7):2041-2049(2010)
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Images



NR4A3 Antibody (C-term) (Cat. #AP16045b) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the NR4A3 antibody detected the NR4A3 protein (arrow).

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