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Phospho-NR4A1(S351) Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3339a

Product Information

Application	DB, E
Primary Accession	P22736
Other Accession	P22829, P12813
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB11095
Calculated MW	64463

Additional Information

Gene ID	3164
Other Names	Nuclear receptor subfamily 4 group A member 1, Early response protein NAK1, Nuclear hormone receptor NUR/77, Nur77, Orphan nuclear receptor HMR, Orphan nuclear receptor TR3, ST-59, Testicular receptor 3, NR4A1, GFRP1, HMR, NAK1
Target/Specificity	This NR4A1 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S351 of human NR4A1.
Dilution	DB~~1:500 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	Phospho-NR4A1(S351) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NR4A1
Synonyms	GFRP1, HMR, NAK1

Function	Orphan nuclear receptor. Binds the NGFI-B response element (NBRE) 5'-AAAGGTCA-3' (PubMed:18690216, PubMed:8121493, PubMed:9315652). Binds 9-cis-retinoic acid outside of its ligand- binding (NR LBD) domain (PubMed:18690216). Participates in energy homeostasis by sequestrating the kinase STK11 in the nucleus, thereby attenuating cytoplasmic AMPK activation (PubMed:22983157). Regulates the inflammatory response in macrophages by regulating metabolic adaptations during inflammation, including repressing the transcription of genes involved in the citric acid cycle (TCA) (By similarity). Inhibits NF-kappa-B signaling by binding to low-affinity NF-kappa-B binding sites, such as at the IL2 promoter (PubMed:15466594). May act concomitantly with NR4A2 in regulating the expression of delayed-early genes during liver regeneration (By similarity). Plays a role in the vascular response to injury (By similarity).
Cellular Location	Nucleus. Cytoplasm, cytosol. Mitochondrion Note=Nuclear export to the cytosol is XPO1-mediated and positively regulated by IFI27 (PubMed:22427340). Translocation to the mitochondrion upon interaction with RXRA and upon the presence of 9-cis retinoic acid (PubMed:17761950).
Tissue Location	Fetal muscle and adult liver, brain and thyroid.

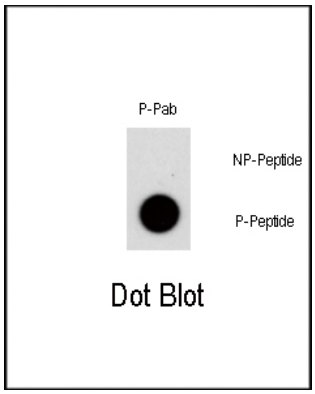
Background

NR4A1 is a member of the steroid-thyroid hormone-retinoid receptor superfamily. Expression is induced by phytohemagglutinin in human lymphocytes and by serum stimulation of arrested fibroblasts. The encoded protein acts as a nuclear transcription factor. Translocation of the protein from the nucleus to mitochondria induces apoptosis.

References

Lu, L., et al., J. Clin. Endocrinol. Metab. 89(8):4113-4118 (2004).
Castro-Obregon, S., et al., J. Biol. Chem. 279(17):17543-17553 (2004).
Lin, B., et al., Cell 116(4):527-540 (2004).
Choi, J.W., et al., Cancer Res. 64(1):35-39 (2004).
Ye, X., et al., Int. J. Biochem. Cell Biol. 36(1):98-113 (2004).

Images



Dot blot analysis of Phospho-NR4A1-S351 polyclonal antibody (Cat# AP3339a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentration was 0.5ug per ml. P-Pab: phospho-antibody; P-Peptide: phospho-peptide; NP-Peptide: non-phospho-peptide.