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NR3C1 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19840B

Product Information

Application	WB, E
Primary Accession	P04150
Other Accession	P59667, Q9N1U3, P06537, NP_000167.1
Reactivity	Human
Predicted	Mouse, Pig, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB41487
Calculated MW	85659
Antigen Region	560-588

Additional Information

Gene ID	2908
Other Names	Glucocorticoid receptor, GR, Nuclear receptor subfamily 3 group C member 1, NR3C1, GRL
Target/Specificity	This NR3C1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 560-588 amino acids from the C-terminal region of human NR3C1.
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	NR3C1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NR3C1 (HGNC:7978)
Synonyms	GRL

Function	Receptor for glucocorticoids (GC) (PubMed: 27120390, PubMed:37478846). Has a dual mode of action: as a transcription factor that binds to glucocorticoid response elements (GRE), both for nuclear and mitochondrial DNA, and as a modulator of other transcription factors (PubMed:28139699). Affects inflammatory responses, cellular proliferation and differentiation in target tissues. Involved in chromatin remodeling (PubMed:9590696). Plays a role in rapid mRNA degradation by binding to the 5' UTR of target mRNAs and interacting with PNRC2 in a ligand-dependent manner which recruits the RNA helicase UPF1 and the mRNA-decapping enzyme DCP1A, leading to RNA decay (PubMed:25775514). Could act as a coactivator for STAT5-dependent transcription upon growth hormone (GH) stimulation and could reveal an essential role of hepatic GR in the control of body growth (By similarity).
Cellular Location	[Isoform Alpha]: Cytoplasm. Nucleus. Mitochondrion. Cytoplasm, cytoskeleton, spindle. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Chromosome {ECO:0000250|UniProtKB:P06537}. Nucleus, nucleoplasm {ECO:0000250|UniProtKB:P06537}. Note=After ligand activation, translocates from the cytoplasm to the nucleus (PubMed:30698747). The hormone-occupied receptor undergoes rapid exchange between chromatin and the nucleoplasmic compartment (By similarity). In the presence of NR1D1 shows a time-dependent subcellular localization, localizing to the cytoplasm at ZT8 and to the nucleus at ZT20 (By similarity). Lacks this diurnal pattern of localization in the absence of NR1D1, localizing to both nucleus and the cytoplasm at ZT8 and ZT20 (By similarity). Upon dexamethasone binding associates with the glucocorticoid response elements of target genes (By similarity) {ECO:0000250|UniProtKB:P06537, ECO:0000269|PubMed:30698747} [Isoform Alpha-B]: Nucleus. Cytoplasm Note=After ligand activation, translocates from the cytoplasm to the nucleus.
Tissue Location	Widely expressed including bone, stomach, lung, liver, colon, breast, ovary, pancreas and kidney (PubMed:25847991). In the heart, detected in left and right atria, left and right ventricles, aorta, apex, intraventricular septum, and atrioventricular node as well as whole adult and fetal heart (PubMed:10902803) [Isoform Alpha-2]: Widely expressed.

Background

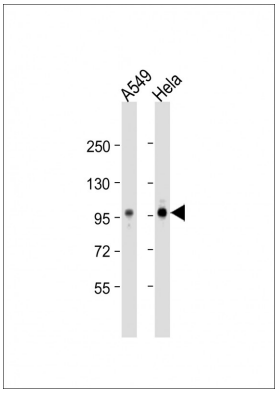
The protein encoded by this gene is a receptor for glucocorticoids that can act as both a transcription factor and as a regulator of other transcription factors. This protein can also be found in heteromeric cytoplasmic complexes along with heat shock factors and immunophilins. The protein is typically found in the cytoplasm until it binds a ligand, which induces transport into the nucleus. Mutations in this gene are a cause of glucocorticoid resistance, or cortisol, resistance. Alternate splicing, the use of at least three different promoters, and alternate translation initiation sites result in several transcript variants encoding the same protein or different isoforms, but the full-length nature of some variants has not been determined.

References

Seitz, T., et al. J. Mol. Biol. 403(4):562-577(2010)
Wang, W., et al. Nucleic Acids Res. (2010) In press :
Sarzynski, M.A., et al. Int J Obes (Lond) (2010) In press :
Desrivieres, S., et al. Addict Biol (2010) In press :
van Oosten, M.J., et al. Arthritis Res. Ther. 12 (4), R159 (2010) :

Images

All lanes : Anti-NR3C1 Antibody (C-term) at 1:1000



dilution Lane 1: A549 whole cell lysate Lane 2: Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 86 kDa Blocking/Dilution buffer: 5% NFDM/TBST.