

NR3C1 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP5468c

Specification

NR3C1 Antibody (Center) - Product Information

Application	IF, IHC-P, WB,E
Primary Accession	P04150
Other Accession	P59667 , NP_000167.1
Reactivity	Human, Mouse
Predicted	Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	85659
Antigen Region	236-262

NR3C1 Antibody (Center) - 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 236-262 amino acids from the Central region of human NR3C1.

Dilution

IF~~1:10~50
IHC-P~~1:10~50
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 (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

NR3C1 Antibody (Center) - 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

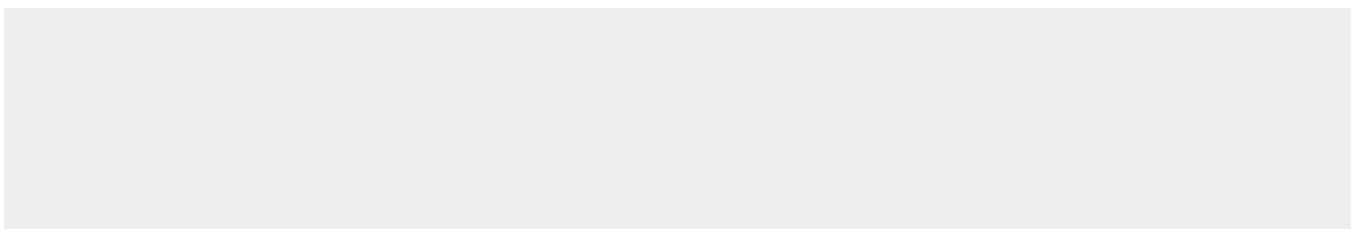
Widely expressed including bone, stomach, lung, liver, colon, breast, ovary, pancreas and kidney (PubMed:25847991). In the heart, detected in left and right atria, left and right ventricles, aorta, apex, intraventricular septum, and atrioventricular node as well as whole adult and fetal heart (PubMed:10902803) [Isoform Alpha-2]: Widely expressed.

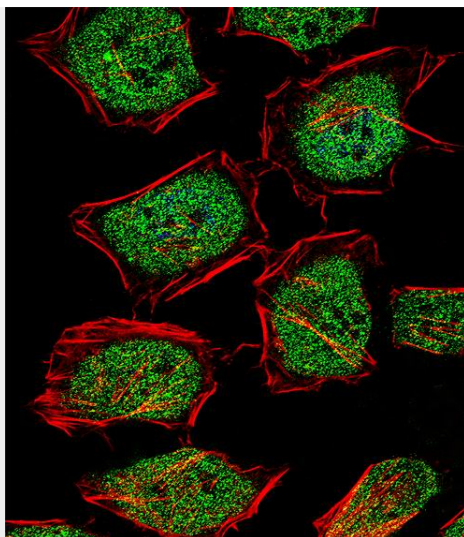
NR3C1 Antibody (Center) - Protocols

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

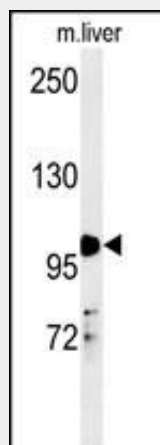
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

NR3C1 Antibody (Center) - Images

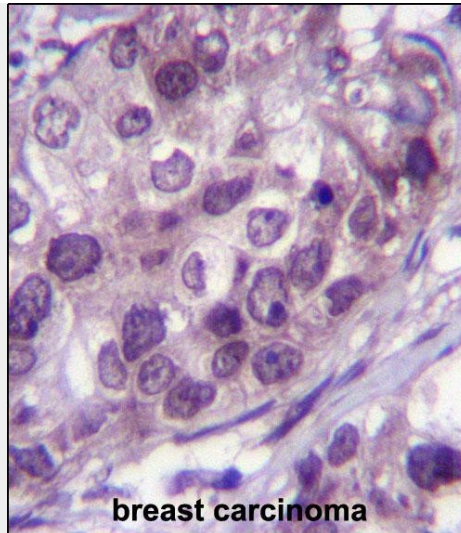




Fluorescent confocal image of HeLa cell stained with NR3C1 Antibody (Center) (Cat#AP5468c). HeLa cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.1%, 10 min), then incubated with NR3C1 primary antibody (1:25, 1 h at 37°C). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:400, 50 min at 37°C). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (7units/ml, 1 h at 37°C). Nuclei were counterstained with DAPI (blue) (10 µg/ml, 10 min). NR3C1 immunoreactivity is localized to Cytoplasm and Nucleus significantly.



NR3C1 Antibody (Center) (Cat.#AP5468c) western blot analysis in mouse liver tissue lysates (35ug/lane). This demonstrates the NR3C1 antibody detected NR3C1 protein (arrow).



NR3C1 Antibody (Center) (Cat. #AP5468c) immunohistochemistry analysis in formalin fixed and paraffin embedded human breast carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of NR3C1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

NR3C1 Antibody (Center) - Background

NR3C1 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.

NR3C1 Antibody (Center) - References

Bosker, F.J., et al. Mol. Psychiatry (2010)
Inkster, B., et al. Neuroimage (2010)
Geelhoed, M.J., et al. BMC Med. Genet. 11, 39 (2010)