

NR3C1 Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM2187b

Specification

NR3C1 Antibody - Product Information

Application
Primary Accession
Reactivity
Host
Clonality
Isotype
Antigen Region

WB,E
P04150
Human, Mouse
Mouse
Monoclonal
IgM,k
136-164

NR3C1 Antibody - 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 mice immunized with a KLH conjugated synthetic peptide between 136-164 amino acids from human NR3C1.

Dilution

WB~~1:1000

Format

Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Euglobin 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

NR3C1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NR3C1 Antibody - Protein Information

Name NR3C1 (HGNC:7978)

Synonyms GRL

Function Receptor for glucocorticoids (GC) (PubMed: <u>27120390</u>, PubMed: <u>37478846</u>). 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:<u>28139699</u>). Affects inflammatory responses, cellular proliferation and differentiation in target tissues. Involved in chromatin remodeling (PubMed:<u>9590696</u>). 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:<u>25775514</u>). 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.

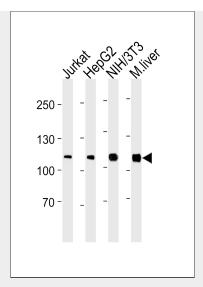
NR3C1 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NR3C1 Antibody - Images





NR3C1 Antibody (N-term) (Cat. #AM2187b) western blot analysis in Jurkat, HepG2, mouse NIH/3T3 cell line and mouse liver tissue lysates ($35\mu g/lane$). This demonstrates the NR3C1 antibody detected the NR3C1 protein (arrow).

NR3C1 Antibody - Background

Receptor for glucocorticoids (GC). Has a dual mode of action: as a transcription factor that binds to glucocorticoid response elements (GRE) and as a modulator of other transcription factors. Affects inflammatory responses, cellular proliferation and differentiation in target tissues. 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. Involved in chromatin remodeling. Plays a significant role in transactivation. Involved in nuclear translocation (By similarity).

NR3C1 Antibody - References

Hollenberg S.M., et al. Nature 318:635-641(1985). Encio I.J., et al. J. Biol. Chem. 266:7182-7188(1991). Wang W., et al. Nucleic Acids Res. 39:44-58(2011). Turner J.D., et al. Ann. N. Y. Acad. Sci. 1095:334-341(2007). Munroe D.G., et al. Submitted (SEP-1993) to the EMBL/GenBank/DDBJ databases.