10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NR0B2 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58149

Specification

NR0B2 Polyclonal Antibody - Product Information

Application	**WB, IHC-P, IHC-F, IF, ICC, E**
Primary Accession	Q15466
Reactivity	**Rat, Dog, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**28 KDa**
Physical State	**Liquid**
Immunogen	**KLH conjugated synthetic peptide derived from human NR0B2**
Epitope Specificity	**31-130/257**
Isotype	**IgG**

Purity
affinity purified by Protein A

Buffer	**0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.**
SUBCELLULAR LOCATION	**Nucleus. Cytoplasm. Note=Colocalizes with NEUROD1 in the nucleus.**
SIMILARITY	**Belongs to the nuclear hormone receptor family. NR0 subfamily.**
SUBUNIT	**Interacts with RARA, RXRA, THRB, NR5A1, NR5A2, NR1I3, PPARA, PPARG and EID1. May also interact with HNF4A (By similarity). Heterodimer; efficient DNA binding requires dimerization with another bHLH protein. Interacts (via N-terminus) with NEUROD1 (via N-terminus an C-terminus). Interacts with ID2.**
DISEASE	**Defects in NR0B2 may be associated with obesity (OBESITY) [MIM:601665]. It is a condition characterized by an increase of body weight beyond the limitation of skeletal and physical requirements, as the result of excessive accumulation of body fat.**
Important Note	**This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.**

Background Descriptions
SHP is an orphan nuclear receptor containing the dimerization and ligand-binding domains found in other nuclear receptors, but lacking the conserved DNA binding domain. SHP is specifically expressed in liver and other tissues, including fetal liver and adrenal gland, as well as adult spleen and small intestine. In addition, SHP is highy expressed in the murine macrophage cell line RAW 264.7 but suppressed by oxLDL and 13-HODE, which is a ligand for PPARg. SHP interacts with nuclear receptors, including thyroid receptor, retinoic acid receptors (RAR and RXR) and estrogen

receptors (ERa and ERb). SHP functions as a negative regulator of these receptors by at least three mechanisms: inhibition of DNA binding via dimerization, direct antagonism of coactivator function through competition and possibly transrepression via recruitment of putative corepressors. In oxLDL-treated, resting macrophage cells, SHP acts as a transcription coactivator of NFkB, suggesting that SHP is a modulatory component in the regulation of the transcriptional activities of NFkB. Lastly, negative feedback regulation of a hepatic bile acid transporter, NTCP, is controlled by bile acid-activated FXR via induction of SHP to protect the hepatocyte from bile acid-mediated damage in cholestatic conditions.

NR0B2 Polyclonal Antibody - Additional Information

Gene ID 8431

Other Names
Nuclear receptor subfamily 0 group B member 2, Orphan nuclear receptor SHP, Small heterodimer partner, NR0B2, SHP

Target/Specificity
Liver. Low levels of expression were detected in heart and pancreas.

Dilution
WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Storage
Store at -20 ℃ for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 ℃.

NR0B2 Polyclonal Antibody - Protein Information

Name NR0B2

Synonyms SHP

Function
Transcriptional regulator that acts as a negative regulator of receptor-dependent signaling pathways (PubMed:22504882). Specifically inhibits transactivation of the nuclear receptor with which it interacts (PubMed:22504882). Inhibits transcriptional activity of NEUROD1 on E-box-containing promoter by interfering with the coactivation function of the p300/CBP-mediated transcription complex for NEUROD1 (PubMed:14752053). Essential component of the liver circadian clock which via its interaction with NR1D1 and RORG regulates NPAS2-mediated hepatic lipid metabolism (By similarity). Regulates the circadian expression of cytochrome P450 (CYP) enzymes (By similarity). Represses: NR5A2 and HNF4A to down-regulate CYP2C38, NFLI3 to up- regulate CYP2A5, BHLHE41/HNF1A axis to up-regulate CYP1A2, CYP2E1 and CYP3A11, and NR1D1 to up-regulate CYP2B10, CYP4A10 and CYP4A14 (By similarity).

Cellular Location

Nucleus. Cytoplasm Note=Colocalizes with NEUROD1 in the nucleus

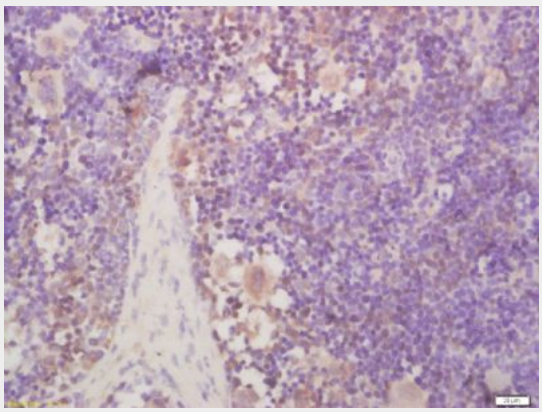
Tissue Location
Liver. Low levels of expression were detected in heart and pancreas.

NR0B2 Polyclonal Antibody - Protocols

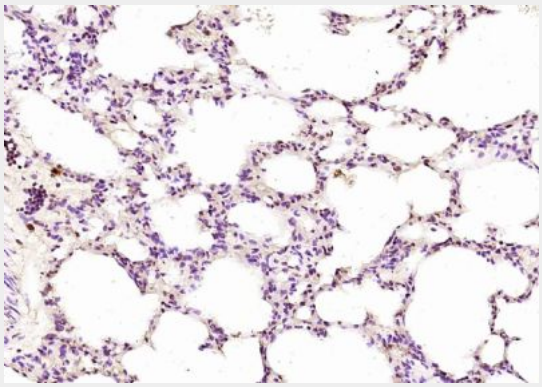
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

NR0B2 Polyclonal Antibody - Images



Tissue/cell: mouse spleen tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-NROB2 Polyclonal Antibody, Unconjugated(bs-4311R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



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Paraformaldehyde-fixed, paraffin embedded (rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (NR0B2) Polyclonal Antibody, Unconjugated (bs-4311R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.