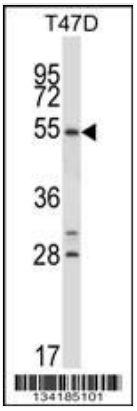
NR1D1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	NR1D1, Polyclonal Antibody
Full Product Name	NR1D1, ID (NR1D1, EAR1, HREV, THRAL, Nuclear receptor subfamily 1 group D member 1, Rev-erbA-alpha, V-erbA-related protein 1) (FITC)
Product Gene Name	anti-NR1D1 antibody
Product Synonym Names	NR1D1; EAR1; HREV; THRAL; Nuclear receptor subfamily 1 group D member 1; Rev-erbA-alpha; V-erbA-related protein 1
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Fluorescein Isothiocyanate (FITC).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: FITC conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	66,805 Da
OMIM	602408
3D Structure	ModBase 3D Structure for P20393
Immunogen	NR1D1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 190-219 amino acids from the Central region of human NR1D1.
Conjugate	FITC
Note	Preservative Free
Special Handling	Light sensitive
Product Categories/Family for anti-NR1D1 antibody	Antibodies; Receptors
Applications Tested/Suitable for anti-NR1D1 antibody	Western Blot (WB), FLISA
Application Notes for anti-NR1D1 antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-NR1D1 antibody	NR1D1 functions as a constitutive transcriptional repressor. Possible receptor for triiodothyronine.
Product References and Citations for anti-NR1D1 antibody	Bailey, S.D., et al. Diabetes Care (2010). In press: Phelan, C.A., et al. Nat. Struct. Mol. Biol. 17(7):808-814(2010). Yin, L., et al. Proc. Natl. Acad. Sci. U.S.A. 107(25):11614-11619(2010). Campos-de-Sousa, S., et al. J. Biol. Rhythms 25(2):132-137(2010). Kripke, D.F., et al. Psychiatry Investig 7(1):36-42(2010).

Other Notes	Small volumes of anti-NR1D1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for NR1D1 purchase	MBS6326482 is an antibody targeting NR1D1. Also known as NR1D1, ID (NR1D1, EAR1, HREV, THRAL, Nuclear receptor subfamily 1 group D member 1, Rev-erbA-alpha, V-erbA-related protein 1) (FITC). Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-NR1D1 antibody
NR1D1 Antibody (Center) western blot analysis in T47D cell line lysates (35ug/lane).This demonstrates the NR1D1 antibody detected the NR1D1 protein (arrow).

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NR1D1. It may not necessarily be applicable to this product.

NCBI GI #	13430848
NCBI GeneID	9572
NCBI Accession #	NP_068370.1
UniProt Primary Accession #	P20393
UniProt Secondary Accession #	Q0P5Z4; Q15304
UniProt Related Accession #	P20393
GenBank Nucleotide #	NM_021724.4
NCBI Official Full Name	nuclear receptor subfamily 1 group D member 1
NCBI Official Synonym Full Names	nuclear receptor subfamily 1, group D, member 1
NCBI Official Symbol	NR1D1
NCBI Official Synonym Symbols	EAR1; hRev; THRA1; THRAL; ear-1
UniProt Protein Name	Nuclear receptor subfamily 1 group D member 1
UniProt Synonym Protein Names	Rev-erbA-alpha; V-erbA-related protein 1; EAR-1
Protein Family	Nuclear receptor subfamily
UniProt Gene Name	NR1D1
UniProt Synonym Gene Names	EAR1; HREV; THRAL; EAR-1
UniProt Entry Name	NR1D1_HUMAN
NCBI Protein Information	nuclear receptor subfamily 1 group D member 1; Rev-ErbAalpha; rev-erbA-alpha; V-erbA-related protein 1; nuclear receptor Rev-ErbA-alpha

NCBI Summary for NR1D1	This gene encodes a transcription factor that is a member of the nuclear receptor subfamily 1. The encoded protein is a ligand-sensitive transcription factor that negatively regulates the expression of core clock proteins. In particular this protein represses the circadian clock transcription factor aryl hydrocarbon receptor nuclear translocator-like protein 1 (ARNTL). This protein may also be involved in regulating genes that function in metabolic, inflammatory and cardiovascular processes. [provided by RefSeq, Jan 2013]
UniProt Comments for NR1D1	NR1D1: a widely expressed member of the orphan nuclear receptor family of proteins. Expressed at relatively high levels in adipose tissue, skeletal muscle, brain and liver, and regulates cellular proliferation and differentiation. Expression increases during differentiation in adipocytes and its ectopic expression in 3T3-L1 cells potentiates adipocyte differentiation. A metabolic regulator whose expression is increased in HER2-positive breast cancer cells. Regulates malate dehydrogenase 1 (MDH1) and malic enzyme 1 (ME1), enzymes that link glycolysis and fatty acid synthesis. May contribute to the abnormal cellular energy metabolism observed in HER2-positive breast cancers. Its expression oscillates with circadian rhythm in liver cells, regulating the expression of BMAL1, ApoA1 and ApoC3, all key regulators of circadian rhythm. Represses the basal activity of the mouse Bmal1 gene promoter. Phosphorylation by GSK3b at S55/59 stabilizes NRD1 protein levels. Regulates inflammation by targeting the NF-??B responsive genes IL-6 and COX-2. NR1D1 lacks the activation function 2 domain required for ligand-dependent activation of transcription by other members of the nuclear receptor family; thus it behaves as a constitutive repressor protein, recruiting the nuclear receptor co-repressor N-CoR1/HDAC3 complex to target genes to repress transcription. Protein type: Nuclear receptor; Transcription factor Chromosomal Location of Human Ortholog: 17q11.2 Cellular Component: nucleoplasm; nuclear chromatin; dendrite; cytoplasm; dendritic spine; nucleus Molecular Function: ligand-dependent nuclear receptor activity; protein binding; zinc ion binding; heme binding; steroid hormone receptor activity; transcription corepressor activity Biological Process: proteasomal protein catabolic process; circadian rhythm; circadian thermoregulation; transcription initiation from RNA polymerase II promoter; glycogen biosynthetic process; intracellular receptor-mediated signaling pathway; regulation of lipid metabolic process; regulation of fat cell differentiation; positive regulation of transcription, DNA-dependent; negative regulation of transcription from RNA polymerase II promoter; regulation of circadian rhythm; negative regulation of toll-like receptor 4 signaling pathway; gene expression; steroid hormone mediated signaling; circadian regulation of gene expression; negative regulation of transcription, DNA-dependent; cell differentiation
Research Articles on NR1D1	**1.** Using free-energy simulations, the study shows that rev-erbA-alpha-induced DNA deformation preferentially occurs by induced fit rather than by conformational selection, even though the DNA is only slightly distorted in the complex.
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