Datasheet for ABIN7554741

NR1D2 Protein (AA 1-579) (His tag)

Go to Product page

Overview

Quantity:	1 mg
Target:	NR1D2
Protein Characteristics:	AA 1-579
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This NR1D2 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant NR1D2 Protein expressed in mammalian cells.
Sequence:	MEVNAGGVIA YISSSSSASS PASCHSEGSE NSFQSSSSSV PSSPNSSNSD TNGNPKNGDL ANIEGILKND RIDCSMKTSK SSAPGMTKSH SGVTKFSGMV LLCKVCGDVA SGFHYGVHAC EGCKGFFRRS IQQNIQYKKC LKNENCSIMR MNRNRCQQCR FKKCLSVGMS RDAVRFGRIP KREKQRMLIE MQSAMKTMMN SQFSGHLQND TLVEHHEQTA LPAQEQLRPK PQLEQENIKS SSPPSSDFAK EEVIGMVTRA HKDTFMYNQE QQENSAESMQ PQRGERIPKN MEQYNLNHDH CGNGLSSHFP CSESQQHLNG QFKGRNIMHY PNGHAICIAN GHCMNFSNAY TQRVCDRVPI DGFSQNENKN SYLCNTGGRM HLVCPMSKSP YVDPHKSGHE IWEEFSMSFT PAVKEVVEFA KRIPGFRDLS QHDQVNLLKA GTFEVLMVRF ASLFDAKERT VTFLSGKKYS VDDLHSMGAG DLLNSMFEFS EKLNALQLSD EEMSLFTAVV LVSADRSGIE NVNSVEALQE TLIRALRTLI MKNHPNEASI FTKLLLKLPD LRSLNNMHSE ELLAFKVHP **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please**

Product Details

	contact us.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different isoform, please contact us regarding an individual offer.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalian cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)
Grade:	custom-made

Target Details

Target:	NR1D2
Alternative Name:	NR1D2 (NR1D2 Products)
Background:	Nuclear receptor subfamily 1 group D member 2 (Orphan nuclear hormone receptor BD73) (Rev-erb alpha-related receptor) (RVR) (Rev-erb-beta) (V-erbA-related protein 1-related) (EAR-1R),FUNCTION: Transcriptional repressor which coordinates circadian rhythm and metabolic pathways in a heme-dependent manner. Integral component of the complex transcription machinery that governs circadian rhythmicity and forms a critical negative limb of the circadian clock by directly repressing the expression of core clock components BMAL1 and CLOCK. Also regulates genes involved in metabolic functions, including lipid metabolism and the inflammatory response. Acts as a receptor for heme which stimulates its interaction with the NCOR1/HDAC3 corepressor complex, enhancing transcriptional repression. Recognizes two classes of DNA response elements within the promoter of its target genes and can bind to DNA

Target Details

	as either monomers or homodimers, depending on the nature of the response element. Binds as a monomer to a response element composed of the consensus half-site motif 5'-[A/G]GGTCA-3' preceded by an A/T-rich 5' sequence (RevRE), or as a homodimer to a direct repeat of the core motif spaced by two nuclegotides (RevDR-2). Acts as a potent competitive repressor of ROR alpha (RORA) function and also negatively regulates the expression of NR1D1. Regulates lipid and energy homeostasis in the skeletal muscle via repression of genes involved in lipid metabolism and myogenesis including: CD36, FABP3, FABP4, UCP3, SCD1 and MSTN. Regulates hepatic lipid metabolism via the repression of APOC3. Represses gene expression at a distance in macrophages by inhibiting the transcription of enhancer-derived RNAs (eRNAs). In addition to its activity as a repressor, can also act as a transcriptional activator. Acts as a transcriptional activator of the sterol regulatory element-binding protein 1 (SREBF1) and the inflammatory mediator interleukin-6 (IL6) in the skeletal muscle (By similarity). Plays a role in the regulation of circadian sleep/wake cycle, essential for maintaining wakefulness during the dark phase or active period (By similarity). Key regulator of skeletal muscle mitochondrial function, negatively regulates the skeletal muscle expression of core clock genes and genes involved in mitochondrial biogenesis, fatty acid beta-oxidation and lipid metabolism (By similarity). May play a role in the circadian control of neutrophilic inflammation in the lung (By similarity). {ECO:0000250|UniProtKB:Q60674, ECO:0000269|PubMed:17892483, ECO:0000269|PubMed:17996965}.
Molecular Weight:	64.6 kDa
UniProt:	Q14995
Pathways:	Nuclear Receptor Transcription Pathway, Steroid Hormone Mediated Signaling Pathway

Application Details

Application Notes:	We expect the protein to work for functional studies. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.

Handling

Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months

