Datasheet for ABIN7563380

RORA Protein (AA 1-523) (His tag)

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Overview

Quantity:	1 mg
Target:	RORA
Protein Characteristics:	AA 1-523
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RORA protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant Rora Protein expressed in mammalian cells.
Sequence:	MESAPAAPDP AASEPGSSGS EAAAGSRETP LTQDTGRKSE APGAGRRQSY ASSSRGISVT KKTHTSQIEI IPCKICGDKS SGIHYGVITC EGCKGFFRRS QQSNATYSCP RQKNCLIDRT SRNRCQHCRL QKCLAVGMSR DAVKFGRMSK KQRDSLYAEV QKHRMQQQQR DHQQQPGEAE PLTPTYNISA NGLTELHDDL STYMDGHTPE GSKADSAVSS FYLDIQPSPD QSGLDINGIK PEPICDYTPA SGFFPYCSFT NGETSPTVSM AELEHLAQNI SKSHLETCQY LREELQQITW QTFLQEEIEN YQNKQREVMW QLCAIKITEA IQYVVEFAKR IDGFMELCQN DQIVLLKAGS LEVVFIRMCR AFDSQNNTVY FDGKYASPDV FKSLGCEDFI SFVFEFGKSL CSMHLTEDEI ALFSAFVLMS ADRSWLQEKV KIEKLQQKIQ LALQHVLQKN HREDGILTKL ICKVSTLRAL CGRHTEKLMA FKAIYPDIVR LHFPPLYKEL FTSEFEPAMQ IDG **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 contact us.**

Product Details

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:	RORA
Alternative Name:	Rora (RORA Products)
Background:	Nuclear receptor ROR-alpha (Nuclear receptor RZR-alpha) (Nuclear receptor subfamily 1 group F member 1) (RAR-related orphan receptor A) (Retinoid-related orphan receptor-alpha),FUNCTION: Nuclear receptor that binds DNA as a monomer to ROR response elements (RORE) containing a single core motif half-site 5'-AGGTCA-3' preceded by a short A-T-rich sequence. Key regulator of embryonic development, cellular differentiation, immunity, circadian rhythm as well as lipid, steroid, xenobiotics and glucose metabolism. Considered to have intrinsic transcriptional activity, have some natural ligands like oxysterols that act as agonists (25-hydroxycholesterol) or inverse agonists (7-oxygenated sterols), enhancing or repressing the transcriptional activity, respectively. Recruits distinct combinations of cofactors to target genes regulatory regions to modulate their transcriptional expression, depending on the tissue, time and promoter contexts. Regulates genes involved in photoreceptor development including

	OPN1SW, OPN1SM and ARR3 and skeletal muscle development with MYOD1. Required for proper cerebellum development, regulates SHH gene expression, among others, to induce granule cells proliferation as well as expression of genes involved in calcium-mediated signal transduction. Regulates the circadian expression of several clock genes, including CLOCK, BMAL1, NPAS2 and CRY1. Competes with NR1D1 for binding to their shared DNA response element on some clock genes such as BMAL1, CRY1 and NR1D1 itself, resulting in NR1D1-mediated repression or RORA-mediated activation of clock genes expression, leading to the circadian pattern of clock genes expression. Therefore influences the period length and stability of the clock. Regulates genes involved in lipid metabolism such as apolipoproteins APOA1, APOA5, APOC3 and PPARG. In liver, has specific and redundant functions with RORC as positive or negative modulator of expression of genes encoding phase I and phase II proteins involved in the metabolism of lipids, steroids and xenobiotics, such as CYP7B1 and SULT2A1. Induces a rhythmic expression of some of these genes. In addition, interplays functionally with NR1H2 and NR1H3 for the regulation of genes involved in cholesterol metabolism. Also involved in the regulation of hepatic glucose metabolism through the modulation of G6PC1 and PCK1. In adipose tissue, plays a role as negative regulator of adipocyte differentiation, probably acting through dual mechanisms. May suppress CEBPB-dependent adipogenesis through direct interaction and PPARG-dependent adipogenesis through competition for DNA-binding. Downstream of IL6 and TGFB and synergistically with RORC isoform 2, is implicated in the lineage specification of uncommitted CD4(+) T-helper (T(H)) cells into T(H)17 cells, antagonizing the T(H)1 program. Probably regulates IL17 and IL17F expression on T(H) by binding to the essential enhancer conserved non-coding sequence 2 (CNS2) in the IL17-IL17F locus. Involved in hypoxia signaling by interacting with and activating the transcriptional activity of HIF1A. May inhibit cell growth in response to cellular stress. May exert an anti-inflammatory role by inducing CHUK expression and inhibiting NF-kappa-B signaling. {ECO:0000269|PubMed:11053433, ECO:0000269|PubMed:14687547, ECO:0000269|PubMed:15821743, ECO:0000269|PubMed:17666523, ECO:0000269|PubMed:18055760, ECO:0000269|PubMed:18164222, ECO:0000269|PubMed:18441015, ECO:0000269|PubMed:19014374, ECO:0000269|PubMed:19324970, ECO:0000269|PubMed:19965867, ECO:0000269|PubMed:21499262, ECO:0000269|PubMed:21628546, ECO:0000269|PubMed:22753030, ECO:0000269|PubMed:23172836, ECO:0000269|PubMed:23723244}.
Molecular Weight:	58.8 kDa
UniProt:	P51448

Target Details

Pathways:	Nuclear Receptor Transcription Pathway, Steroid Hormone Mediated Signaling Pathway, Regulation of Lipid Metabolism by PPARalpha

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