Datasheet for ABIN7547113

HSD11B2 Protein (AA 1-405) (His tag)

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Overview

Quantity:	1 mg
Target:	HSD11B2
Protein Characteristics:	AA 1-405
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This HSD11B2 protein is labelled with His tag.

Product Details

Purpose:	Custom-made recombinant HSD11B2 Protein expressed in mammalian cells.
Sequence:	MERWPWPSGG AWLLVAARAL LQLLRSDLRL GRPLLAALAL LAALDWLCQR LLPPPAALAV LAAAGWIALS RLARPQRLPV ATRAVLITGC DSGFGKETAK KLDSMGFTVL ATVLELNSPG AIELRTCCSP RLRLLQMDLT KPGDISRVLE FTKAHTTSTG LWGLVNNAGH NEVVADAELS PVATFRSCME VNFFGALELT KGLLPLLRSS RGRIVTVGSP AGDMPYPCLG AYGTSKAAVA LLMDTFSCEL LPWGVKVSII QPGCFKTESV RNVGQWEKRK QLLLANLPQE LLQAYGKDYI EHLHGQFLHS LRLAMSDLTP VVDAITDALL AARPRRRYYP GQGLGLMYFI HYYLPEGLRR RFLQAFFISH CLPRALQPGQ PGTTPPQDAA QDPNLSPGPS PAVAR **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.**
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.

Product Details

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:	HSD11B2
Alternative Name:	HSD11B2 (HSD11B2 Products)
Background:	11-beta-hydroxysteroid dehydrogenase type 2 (11-DH2) (11-beta-HSD2) (EC 1.1.1.-) (11-beta-hydroxysteroid dehydrogenase type II) (11-HSD type II) (11-beta-HSD type II) (Corticosteroid 11-beta-dehydrogenase isozyme 2) (NAD-dependent 11-beta-hydroxysteroid dehydrogenase) (Short chain dehydrogenase/reductase family 9C member 3),FUNCTION: Catalyzes the conversion of biologically active 11beta-hydroxyglucocorticoids (11beta-hydroxysteroid) such as cortisol, to inactive 11-ketoglucocorticoids (11-oxosteroid) such as cortisone, in the presence of NAD(+) (PubMed:7859916, PubMed:8538347, PubMed:10497248, PubMed:22796344, PubMed:27927697, PubMed:30902677, PubMed:33387577, PubMed:12788846, PubMed:17314322). Functions as a dehydrogenase (oxidase), thereby decreasing the concentration of active glucocorticoids, thus protecting the nonselective mineralocorticoid receptor from occupation by glucocorticoids (PubMed:7859916, PubMed:10497248, PubMed:33387577, PubMed:12788846, PubMed:17314322). Plays an important role in maintaining glucocorticoids balance during preimplantation and protects the

Target Details

	fetus from excessive maternal corticosterone exposure (By similarity). Catalyzes the oxidation of 11beta-hydroxytestosterone (11beta,17beta-dihydroxyandrost-4-ene-3-one) to 11-ketotestosterone (17beta-hydroxyandrost-4-ene-3,11-dione), a major bioactive androgen (PubMed:22796344, PubMed:27927697). Catalyzes the conversion of 11beta-hydroxyandrostenedione (11beta-hydroxyandrost-4-ene-3,17-dione) to 11-ketoandrostenedione (androst-4-ene-3,11,17-trione), which can be further metabolized to 11-ketotestosterone (PubMed:27927697). Converts 7-beta-25-dihydroxycholesterol to 7-oxo-25-hydroxycholesterol in vitro (PubMed:30902677). 7-beta-25-dihydroxycholesterol (not 7-oxo-25-hydroxycholesterol) acts as a ligand for the G-protein-coupled receptor (GPCR) Epstein-Barr virus-induced gene 2 (EBI2) and may thereby regulate immune cell migration (PubMed:30902677). May protect ovulating oocytes and fertilizing spermatozoa from the adverse effects of cortisol (By similarity). {ECO:0000250|UniProtKB:O77667, ECO:0000250|UniProtKB:P51661, ECO:0000269|PubMed:10497248, ECO:0000269|PubMed:12788846, ECO:0000269|PubMed:17314322, ECO:0000269|PubMed:22796344, ECO:0000269|PubMed:27927697, ECO:0000269|PubMed:30902677, ECO:0000269|PubMed:33387577, ECO:0000269|PubMed:7859916, ECO:0000269|PubMed:8538347, ECO:0000303|PubMed:30902677}.
Molecular Weight:	44.1 kDa
UniProt:	P80365
Pathways:	Steroid Hormone Biosynthesis, Regulation of Systemic Arterial Blood Pressure by Hormones

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.

Handling

Expiry Date:	12 months