Datasheet for ABIN3132454

CYP21A2 Protein (AA 1-487) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	CYP21A2
Protein Characteristics:	AA 1-487
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CYP21A2 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Brand:	AliCE®
Sequence:	MLLPGLLLLL LLLAGTRWLW GQWKLRKLHL PPLAPGFLHF LQPNLPIYLL GLTQKLGPIY RIRLGMQDVV VLNSNRTIEE ALIQKWVDFA GRPHMLNGKM DLDLSLGDYS LMWKAHKKLS RSALMLGMRD SMEPLIEQLT QEFCERMRAQ AGTPVAIHKE FSFLTCSIIS CLTFGDKDST LVQTLHDCVQ DLLQAWNHWS IQILTIIPLL RFLPNPGLQK LKQIQESRDH IVKQQLKQHK DSLVAGQWKD MIDYMLQGVE KQRDGKDEER LHEGHVHMSV VDLFIGGTET TATTLSWAVA FLLHHPEIQK RLQEELDLKL GPGSQLLYRN RMQLPLLMAT IAEVLRLRPV VPLALPHRAT RASSISGYDI PKDMVIIPNI QGANLDEMVW ELPSKFWPDR FLEPGKNPRT PSFGCGARVC LGEPLARLEL FVVLARLLQA FTLLPPPDGT LPSLQPQPYA GINLPIPPFQ VRLQPRNLAP QDQGERP **Sequence without tag. The proposed Strep-Tag is based on experience s 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.
Characteristics:	Key Benefits: • Made in Germany - from design to production - by highly experienced protein experts. • Protein expressed with ALiCE® and purified in one-step affinity chromatography • These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed). • 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. 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. Expression System: • ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. • During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein! Concentration: • The concentration of our recombinant proteins is measured using the absorbance at 280nm. • The protein's absorbance will be measured against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	CYP21A2
Alternative Name:	Cyp21 (CYP21A2 Products)
Background:	Steroid 21-hydroxylase (EC 1.14.14.16) (21-OHase) (Cytochrome P-450c21) (Cytochrome P450 21) (Cytochrome P450 XXI) (Cytochrome P450-C21),FUNCTION: A cytochrome P450 monooxygenase that plays a major role in adrenal steroidogenesis. Catalyzes the hydroxylation at C-21 of progesterone and 17alpha-hydroxyprogesterone to respectively form 11-deoxycorticosterone and 11-deoxycortisol, intermediate metabolites in the biosynthetic pathway of mineralocorticoids and glucocorticoids. Mechanistically, uses molecular oxygen inserting one oxygen atom into a substrate, and reducing the second into a water molecule, with two electrons provided by NADPH via cytochrome P450 reductase (CPR, NADPH-ferrihemoprotein reductase). {ECO:0000250|UniProtKB:P00191, ECO:0000250|UniProtKB:P08686}.
Molecular Weight:	55.3 kDa
UniProt:	P03940
Pathways:	Metabolism of Steroid Hormones and Vitamin D, Steroid Hormone Biosynthesis, C21-Steroid Hormone Metabolic Process

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months