Datasheet for ABIN3078039

CYP2C8 Protein (AA 1-490) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	CYP2C8
Protein Characteristics:	AA 1-490
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CYP2C8 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MEPFVVLVLC LSFMLLFSLW RQSCRRRKLP PGPTPLPIIG NMLQIDVKDI CKSFTNFSKV YGPVFTVYFG MNPIVVFHGY EAVKEALIDN GEEFSGRGNS PISQRITKGL GIISSNGKRW KEIRRFSLTT LRNFGMGKRS IEDRVQEEAH CLVEELRKTK ASPCDPTFIL GCAPCNVICS VVFQKRFDYK DQNFLTLMKR FNENFRILNS PWIQVCNNFP LLIDCFPGTH NKVLKNVALT RSYIREKVKE HQASLDVNNP RDFIDCFLIK MEQEKDNQKS EFNIENLVGT VADLFVAGTE TTSTTLRYGL LLLLKHPEVT AKVQEEIDHV IGRHRSPCMQ DRSHMPYTDA VVHEIQRYSD LVPTGVPHAV TTDTKFRNYL IPKGTTIMAL LTSVLHDDKE FPNPNIFDPG HFLDKNGNFK KSDYFMPFSA GKRICAGEGL ARMELFLFLT TILQNFNLKS VDDLKNLNTT AVTKGIVSLP PSYQICFIPV **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:	CYP2C8
Alternative Name:	CYP2C8 (CYP2C8 Products)
Background:	Cytochrome P450 2C8 (EC 1.14.14.1) (CYPIIC8) (Cytochrome P450 IIC2) (Cytochrome P450 MP-12) (Cytochrome P450 MP-20) (Cytochrome P450 form 1) (S-mephenytoin 4-hydroxylase),FUNCTION: A cytochrome P450 monooxygenase involved in the metabolism of various endogenous substrates, including fatty acids, steroid hormones and vitamins (PubMed:7574697, PubMed:11093772, PubMed:14559847, PubMed:15766564, PubMed:19965576). 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 (NADPH--hemoprotein reductase) (PubMed:7574697, PubMed:11093772, PubMed:14559847, PubMed:15766564, PubMed:19965576). Primarily catalyzes the epoxidation of double bonds of polyunsaturated fatty acids (PUFA) with a preference for the last double bond (PubMed:7574697, PubMed:15766564, PubMed:19965576). Catalyzes the hydroxylation of carbon-hydrogen bonds. Metabolizes all trans-retinoic acid toward its 4-hydroxylated form (PubMed:11093772). Displays 16-alpha hydroxylase activity toward estrogen steroid hormones, 17beta-estradiol (E2) and estrone (E1) (PubMed:14559847). Plays a role in the oxidative metabolism of xenobiotics. It is the principal enzyme responsible for the metabolism of the anti-cancer drug paclitaxel (taxol) (PubMed:26427316). {ECO:0000269|PubMed:11093772, ECO:0000269|PubMed:14559847, ECO:0000269|PubMed:15766564, ECO:0000269|PubMed:19965576, ECO:0000269|PubMed:26427316, ECO:0000269|PubMed:7574697}.
Molecular Weight:	55.8 kDa
UniProt:	P10632

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

Application Details

	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