Datasheet for ABIN3080193

FMO5 Protein (AA 1-533) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	FMO5
Protein Characteristics:	AA 1-533
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FMO5 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MTKKRIAVIG GGVSGLSSIK CCVEEGLEPV CFERTDDIGG LWRFQENPEE GRASIYKSVI INTSKEMMCF SDYPIPDHYP NFMHNAQVLE YFRMYAKEFD LLKYIRFKTT VCSVKKQPDF ATSGQWEVVT ESEGKKEMNV FDGVMVCTGH HTNAHLPLES FPGIEKFKGQ YFHSRDYKNP EGFTGKRVII IGIGNSGGDL AVEISQTAKQ VFLSTRRGAW ILNRVGDYGY PADVLFSSRL THFIWKICGQ SLANKYLEKK INQRFDHEMF GLKPKHRALS QHPTLNDDLP NRIISGLVKV KGNVKEFTET AAIFEDGSRE DDIDAVIFAT GYSFDFPFLE DSVKVVKNKI SLYKKVFPPN LERPTLAIIG LIQPLGAIMP ISELQGRWAT QVFKGLKTLP SQSEMMAEIS KAQEEIDKRY VESQRHTIQG DYIDTMEELA DLVGVRPNLL SLAFTDPKLA LHLLLGPCTP IHYRVQGPGK WDGARKAILT TDDRIRKPLM TRVVERSSSM TSTMTIGKFM LALAFFAIII AYF **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:	FMO5
Alternative Name:	FMO5 (FMO5 Products)
Background:	Flavin-containing monooxygenase 5 (FMO 5) (Baeyer-Villiger monooxygenase 1) (hBVMO1) (EC 1.14.13.-) (Dimethylaniline monooxygenase [N-oxide-forming] 5) (EC 1.14.13.8) (Dimethylaniline oxidase 5) (NADPH oxidase) (EC 1.6.3.1),FUNCTION: Acts as a Baeyer-Villiger monooxygenase on a broad range of substrates. Catalyzes the insertion of an oxygen atom into a carbon-carbon bond adjacent to a carbonyl, which converts ketones to esters (PubMed:28783300, PubMed:26771671, PubMed:20947616). Active on diverse carbonyl compounds, whereas soft nucleophiles are mostly non- or poorly reactive (PubMed:26771671, PubMed:7872795). In contrast with other forms of FMO it is non- or poorly active on 'classical' substrates such as drugs, pesticides, and dietary components containing soft nucleophilic heteroatoms (Probable) (PubMed:7872795). Able to oxidize drug molecules bearing a carbonyl group on an aliphatic chain, such as nabumetone and pentoxifylline (PubMed:28783300). Also, in the absence of substrates, shows slow but yet significant NADPH oxidase activity (PubMed:26771671). Acts as a positive modulator of cholesterol biosynthesis as well as glucose homeostasis, promoting metabolic aging via pleiotropic effects (By similarity). {ECO:0000250|UniProtKB:P97872, ECO:0000269|PubMed:20947616, ECO:0000269|PubMed:26771671, ECO:0000269|PubMed:28783300, ECO:0000269|PubMed:7872795, ECO:0000305|PubMed:26771671}.
Molecular Weight:	60.2 kDa
UniProt:	P49326

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

Application Details

	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