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Datasheet for ABIN3077339

**SULT1E1 Protein (AA 1-294) (Strep Tag)**

## Overview

Quantity:	1 mg
Target:	SULT1E1
Protein Characteristics:	AA 1-294
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SULT1E1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Sequence: MNSELDYYEK FEEVHGILMY KDFVKYWDNV EAFQARPDDL VIATYPKSGT TWVSEIVYMI  
YKEGDVEKCK EDVIFNRIPF LECRKENLMN GVKQLDEMNS PRIVKTHLPP ELLPASFWEK  
DCKIYLRCRN AKDVAVSFYY FFLMVAGHPN PGSPPEFVEK FMQGQVPYGS WYKHVKSWE  
KGKSPRVLFL FYEDLKEDIR KEVIKLIHFL ERKPSEELVD RIIHHTSFQE MKNNPSTNYT  
TLPDEIMNQK LSPFMRKGIT GDWKNHFTVA LNEKFDKHYE QQMKESTLKF RTEI

**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

## Product Details

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- 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.

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Purification: One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

Purity: > 80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

## Target Details

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Target: SULT1E1

Alternative Name: SULT1E1 ([SULT1E1 Products](#))

Background: Sulfotransferase 1E1 (ST1E1) (EC 2.8.2.4) (EST-1) (Estrogen sulfotransferase)  
(Sulfotransferase, estrogen-preferring),FUNCTION: Sulfotransferase that utilizes 3'-phospho-5'-

## Target Details

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adenylyl sulfate (PAPS) as sulfonate donor to catalyze the sulfate conjugation of estradiol and estrone (PubMed:7779757, PubMed:11884392, PubMed:11006110). Is a key enzyme in estrogen homeostasis, the sulfation of estrogens leads to their inactivation. Also sulfates dehydroepiandrosterone (DHEA), pregnenolone, (24S)-hydroxycholesterol and xenobiotic compounds like ethinylestradiol, equalenin, diethyl stilbesterol and 1-naphthol at significantly lower efficiency (PubMed:11006110, PubMed:19589875). Does not sulfonate cortisol, testosterone and dopamine (PubMed:7779757, PubMed:11006110). May play a role in gut microbiota-host metabolic interaction. O-sulfonates 4-ethylphenol (4-EP), a dietary tyrosine-derived metabolite produced by gut bacteria. The product 4-EPS crosses the blood-brain barrier and may negatively regulate oligodendrocyte maturation and myelination, affecting the functional connectivity of different brain regions associated with the limbic system. {ECO:0000269|PubMed:11006110, ECO:0000269|PubMed:11884392, ECO:0000269|PubMed:19589875, ECO:0000269|PubMed:35165440, ECO:0000269|PubMed:7779757}.

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Molecular Weight: 35.1 kDa

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UniProt: [P49888](#)

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Pathways: [Steroid Hormone Biosynthesis](#)

## Application Details

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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.

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Restrictions: For Research Use only

## Handling

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Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)