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Datasheet for ABIN3081020

GSTA1 Protein (AA 1-222) (Strep Tag)

Overview

Quantity:	1 mg
Target:	GSTA1
Protein Characteristics:	AA 1-222
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GSTA1 protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:	MAEKPKLHYF NARGRMESTR WLLAAAGVEF EEKFIKSAED LDKLRNDGYL MFQQVPMVEI DGMKLVQTRA ILNYIASKYN LYGKDIKERA LIDMYIEGIA DLGEMILLLP VCPPEEKDAK LALIKEKIKN RYFPAFEKVL KSHGQDYLVG NKLSRADIHL VELLYYVEEL DSSLISSFPL LKALKTRISN LPTVKKFLQP GSPRKPPMDE KSLEEARKIF RF 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.
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Characteristics:	Key Benefits: <ul style="list-style-type: none">• 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).
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- 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: > 80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

Target Details

Target: GSTA1

Alternative Name: GSTA1 ([GSTA1 Products](#))

Background: Glutathione S-transferase A1 (EC 2.5.1.18) (13-hydroperoxyoctadecadienoate peroxidase) (EC 1.11.1.-) (Androst-5-ene-3,17-dione isomerase) (EC 5.3.3.-) (GST HA subunit 1) (GST class-alpha member 1) (GST-epsilon) (GSTA1-1) (GTH1) [Cleaved into: Glutathione S-transferase A1, N-

Target Details

terminally processed],FUNCTION: Glutathione S-transferase that catalyzes the nucleophilic attack of the sulfur atom of glutathione on the electrophilic groups of a wide range of exogenous and endogenous compounds (Probable). Involved in the formation of glutathione conjugates of both prostaglandin A2 (PGA2) and prostaglandin J2 (PGJ2) (PubMed:9084911). It also catalyzes the isomerization of D5-androstene-3,17-dione (AD) into D4-androstene-3,17-dione and may therefore play an important role in hormone biosynthesis (PubMed:11152686). Through its glutathione-dependent peroxidase activity toward the fatty acid hydroperoxide (13S)-hydroperoxy-(9Z,11E)-octadecadienoate/13-HPODE it is also involved in the metabolism of oxidized linoleic acid (PubMed:16624487). {ECO:0000269|PubMed:11152686, ECO:0000269|PubMed:16624487, ECO:0000269|PubMed:9084911, ECO:0000305|PubMed:20606271}.

Molecular Weight: 25.6 kDa

UniProt: [P08263](#)

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.

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Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request,

Handling

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)