

Datasheet for ABIN3080479

## GBA3 Protein (AA 1-469) (Strep Tag)



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### Overview

Quantity:	1 mg
Target:	GBA3
Protein Characteristics:	AA 1-469
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This GBA3 protein is labelled with Strep Tag.
Application:	ELISA, SDS-PAGE (SDS), Western Blotting (WB)

### Product Details

Brand:	AlICE®
Sequence:	<p>MAFPAGFGWA AATAAYQVEG GWDADGKGPC VWDTFTHQGG ERVFNQTGD VACGSYTLWE  EDLKCICKQLG LTHYRFSLSW SRRLLPDGTTG FINQKGIDYY NKIIDDLLKN GVTPIVTLYH  FDLPQTLEDQ GGWLSEAIIE SFDKYAQFCF STFGDRVQKW ITINEANVLS VMSYDLGMFP  PGIPHFGTGG YQAAHNLIKA HARSWHSYDS LFRKKQKGMV SLSLFAVWLE PADPNSVSDQ  EAAKRAITFH LDLFAKPIFI DGDYPEVVKS QIASMSQKQG YPSSRLPEFT EEEKKMIKGT  ADFFAVQYYT TRLIKYQENK KGELGILQDA EIEFFPDPSW KNVDWIYVVP WGVCCKLLKYI  KDTYNNPVIY ITENGFPQSD PAPLDDTQRW EYFRQTFQEL FKAIQLDKVN LQVYCAWSLL  DNFEWNQGYS SRFGLFHVDF EDPARPRVPY TSAKEYAKII RNNGLEAHL</p> <p><b>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.</b></p>

# Product Details

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Characteristics:	<div>Key Benefits:</div> <ul style="list-style-type: none"><li>• Made in Germany - from design to production - by highly experienced protein experts.</li><li>• Protein expressed with ALiCE® and purified in one-step affinity chromatography</li><li>• These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).</li><li>• State-of-the-art algorithm used for plasmid design (Gene synthesis).</li></ul> <p>This protein is a <b>made-to-order protein</b> and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.</p> <p>The big advantage of ordering our <b>made-to-order proteins</b> 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.</p> <div>Expression System:</div> <ul style="list-style-type: none"><li>• ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> 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.</li><li>• 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!</li></ul> <div>Concentration:</div> <ul style="list-style-type: none"><li>• The concentration of our recombinant proteins is measured using the absorbance at 280nm.</li><li>• The protein's absorbance will be measured against its specific reference buffer.</li><li>• We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.</li></ul>
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:	GBA3
Alternative Name:	GBA3 ( <a href="#">GBA3 Products</a> )
Background:	<p>Cytosolic beta-glucosidase (EC 3.2.1.21) (Cytosolic beta-glucosidase-like protein 1) (Cytosolic galactosylceramidase) (EC 3.2.1.46) (Cytosolic glucosylceramidase) (EC 3.2.1.45) (Cytosolic glycosylceramidase) (Cytosolic GCase) (Glucosidase beta acid 3) (Glucosylceramidase beta 3) (Klotho-related protein) (KLrP),FUNCTION: Neutral cytosolic beta-glycosidase with a broad substrate specificity that could play a role in the catabolism of glycosylceramides (PubMed:11389701, PubMed:11784319, PubMed:20728381, PubMed:26724485, PubMed:17595169, PubMed:33361282). Has a significant glucosylceramidase activity in vitro (PubMed:26724485, PubMed:17595169). However, that activity is relatively low and its significance in vivo is not clear (PubMed:26724485, PubMed:17595169, PubMed:20728381). Hydrolyzes galactosylceramides/GalCers, glucosylsphingosines/GlcSphs and galactosylsphingosines/GalSphs (PubMed:17595169). However, the in vivo relevance of these activities is unclear (PubMed:17595169). It can also hydrolyze a broad variety of dietary glycosides including phytoestrogens, flavonols, flavones, flavanones and cyanogens in vitro and could therefore play a role in the metabolism of xenobiotics (PubMed:11784319). Possesses transxylosylase activity in vitro using xylosylated ceramides/XylCers (such as beta-D-xylosyl-(1&lt;-&gt;1')-N-acylsphing-4-enine) as xylosyl donors and cholesterol as acceptor (PubMed:33361282). Could also play a role in the catabolism of cytosolic sialyl free N-glycans (PubMed:26193330). {ECO:0000269 PubMed:11389701, ECO:0000269 PubMed:11784319, ECO:0000269 PubMed:17595169, ECO:0000269 PubMed:20728381, ECO:0000269 PubMed:26193330, ECO:0000269 PubMed:26724485, ECO:0000269 PubMed:33361282}.</p>
Molecular Weight:	53.7 kDa
UniProt:	<a href="#">Q9H227</a>

## 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 <i>Nicotiana tabacum</i> 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

Application Details

modifications.

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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 <b>Might differ depending on protein.</b>
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months