

Datasheet for ABIN5710043

## OGT Protein (AA 606-1022, partial) (His-SUMO Tag)



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### 1 Image

#### Overview

Quantity:	100 µg
Target:	OGT
Protein Characteristics:	AA 606-1022, partial
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This OGT protein is labelled with His-SUMO Tag.
Application:	SDS-PAGE (SDS)

#### Product Details

Sequence:	<p>MAEANHFDL SQIPCNGKAA DRIHQDGIHI LVNMNGYTKG ARNELFALRP APIQAMWLGY</p> <p>PGTSGALFMD YIITDQETSP AEVAEQYSEK LAYMPHTFFI GDHANMFPHL KKKAVIDFKS</p> <p>NGHIYDNRIV LNGIDLKAFL DSLPDVKIVK MKCPDGGDNA DSSNTALNMP VIPMNTIAEA</p> <p>VIEMINRGQI QITINGFSIS NGLATTQINN KAATGEEVPR TIIVTTRSQY GLPEDAIVYC</p> <p>NFNQLYKIDP STLQMWANIL KRVPSVLWL LRFPAVGEPN IQQYAQNMGL PQNRIIFSPV</p> <p>APKEEHVRRG QLADVCLDTP LCNGHTTGMD VLWAGTPMVT MPGETLASRV AASQLTCLGC</p> <p>LELIAKNRQE YEDIAVKLGT DLEYLKKVRG KVKWQRISSP LFNTKQYTME LERLYLQ</p>
Purification:	SDS-PAGE
Purity:	> 90 %

## Target Details

Target:	OGT
Alternative Name:	OGT1 ( <a href="#">OGT Products</a> )
Background:	<p>Catalyzes the transfer of a single N-acetylglucosamine from UDP-GlcNAc to a serine or threonine residue in cytoplasmic and nuclear proteins resulting in their modification with a beta-linked N-acetylglucosamine (O-GlcNAc). Glycosylates a large and diverse number of proteins including histone H2B, AKT1, EZH2, PFKL, KMT2E/MLL5, MAPT/TAU and HCFC1. Can regulate their cellular processes via cross-talk between glycosylation and phosphorylation or by affecting proteolytic processing. Involved in insulin resistance in muscle and adipocyte cells via glycosylating insulin signaling components and inhibiting the 'Thr-308' phosphorylation of AKT1, enhancing IRS1 phosphorylation and attenuating insulin signaling. Involved in glycolysis regulation by mediating glycosylation of 6-phosphofructokinase PFKL, inhibiting its activity . Component of a THAP1/THAP3-HCFC1-OGT complex that is required for the regulation of the transcriptional activity of RRM1. Plays a key role in chromatin structure by mediating O-GlcNAcylation of 'Ser-112' of histone H2B: recruited to CpG-rich transcription start sites of active genes via its interaction with TET proteins (TET1, TET2 or TET3) . As part of the NSL complex indirectly involved in acetylation of nucleosomal histone H4 on several lysine residues . O-GlcNAcylation of 'Ser-75' of EZH2 increases its stability, and facilitating the formation of H3K27me3 by the PRC2/EED-EZH2 complex . Regulates circadian oscillation of the clock genes and glucose homeostasis in the liver. Stabilizes clock proteins ARNTL/BMAL1 and CLOCK through O-glycosylation, which prevents their ubiquitination and subsequent degradation. Promotes the CLOCK-ARNTL/BMAL1-mediated transcription of genes in the negative loop of the circadian clock such as PER1/2 and CRY1/2</p>
Molecular Weight:	62.5 kDa
UniProt:	<a href="#">O15294</a>
Pathways:	<a href="#">Regulation of Carbohydrate Metabolic Process</a>

## Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

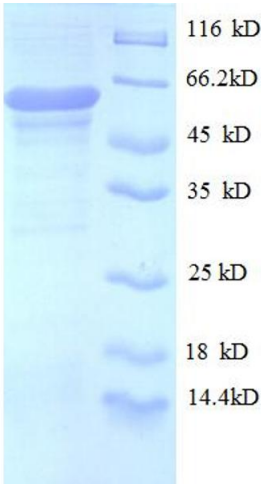
## Handling

Format:	Liquid
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Handling

Concentration:	0.1-2 mg/mL
Buffer:	20 mM Tris-HCl based buffer, pH 8.0
Storage:	-80 °C,4 °C,-20 °C
Storage Comment:	Store at -20°C, for extended storage, conserve at -20°C or -80°C. Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Images



**SDS-PAGE**

**Image 1.**