

Datasheet for ABIN6263805  
**anti-OGT antibody (N-Term)**[Go to Product page](#)

## 2 Images

## Overview

|                      |  |
|----------------------|--|
| Quantity:            | 100 µL   |
| Target:              | OGT  |
| Binding Specificity: | N-Term   |
| Reactivity:          | Human, Mouse, Rat  |
| Host:                | Rabbit   |
| Clonality:           | Polyclonal   |
| Conjugate:           | This OGT antibody is un-conjugated                       |
| Application:         | Western Blotting (WB), ELISA, Immunohistochemistry (IHC) |

## Product Details

|                       |   |
|-----------------------|---|
| Immunogen:            | A synthesized peptide derived from human OGT, corresponding to a region within N-terminal amino acids.                    |
| Isotype:              | IgG   |
| Specificity:          | OGT Antibody detects endogenous levels of total OGT.  |
| Predicted Reactivity: | Pig,Bovine,Sheep,Rabbit,Dog,Chicken,Xenopus   |
| Purification:         | The antiserum was purified by peptide affinity chromatography using SulfoLink™ Coupling Resin (Thermo Fisher Scientific). |

## Target Details

|         |     |
|---------|-----|
| Target: | OGT |
|---------|-----|

## Target Details

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

**Background:** Description: 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) (PubMed:26678539). Glycosylates a large and diverse number of proteins including histone H2B, AKT1, EZH2, PFKL, KMT2E/MLL5, MAPT/TAU and HCFC1 (PubMed:26678539). Can regulate their cellular processes via cross-talk between glycosylation and phosphorylation or by affecting proteolytic processing (PubMed:26678539). Probably by glycosylating KMT2E/MLL5, stabilizes KMT2E/MLL5 by preventing its ubiquitination (PubMed:26678539). 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 (PubMed:22923583). 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) (PubMed:22121020, PubMed:23353889). As part of the NSL complex indirectly involved in acetylation of nucleosomal histone H4 on several lysine residues (PubMed:20018852). O-GlcNAcylation of 'Ser-75' of EZH2 increases its stability, and facilitating the formation of H3K27me3 by the PRC2/EED-EZH2 complex (PubMed:24474760). 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 (PubMed:12150998, PubMed:18288188, PubMed:19377461, PubMed:19451179, PubMed:20018868, PubMed:20200153, PubMed:21285374, PubMed:15361863). O-glycosylates HCFC1 and regulates its proteolytic processing and transcriptional activity (PubMed:21285374, PubMed:28584052, PubMed:28302723).

Gene: OGT

Molecular Weight: 117kDa

Gene ID: 8473

UniProt: [O15294](#)

Pathways: [Regulation of Carbohydrate Metabolic Process](#)

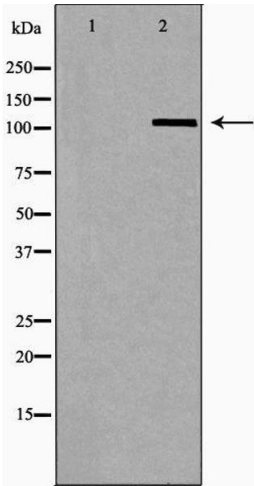
## Application Details

|                    |   |
|--------------------|---|
| Application Notes: | WB 1:500-1:2000, IHC 1:50-1:200, ELISA(peptide) 1:20000-1:40000 |
| Restrictions:      | For Research Use only   |

## Handling

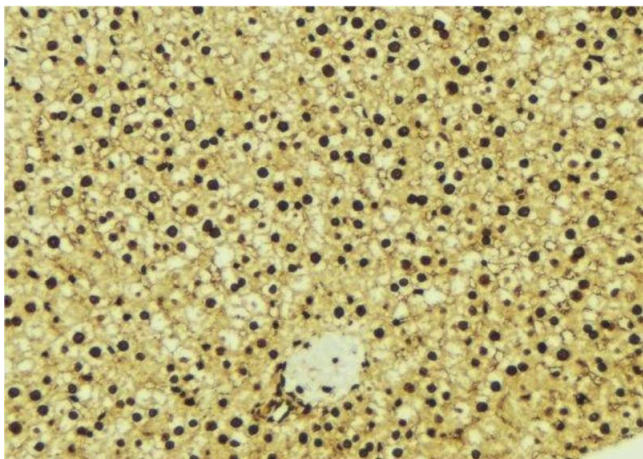
|                    |  |
|--------------------|--|
| Format:            | Liquid   |
| Concentration:     | 1 mg/mL  |
| Buffer:            | Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.                  |
| Preservative:      | Sodium azide   |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage:           | -20 °C   |
| Storage Comment:   | Store at -20 °C. Stable for 12 months from date of receipt.  |
| Expiry Date:       | 12 months  |

## Images



### Western Blotting

**Image 1.** Western blot analysis of Hela whole cell lysates, using OGT Antibody. The lane on the left is treated with the antigen-specific peptide.



#### Immunohistochemistry

**Image 2.** ABIN6277003 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22°C. An HRP conjugated goat anti-rabbit antibody was used as the secondary