

Datasheet for ABIN6972463
anti-OGT antibody (N-Term)



[Go to Product page](#)

2 Images

Overview

Quantity:	100 µL
Target:	OGT
Binding Specificity:	N-Term
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), ChIP DNA-Sequencing (ChIP-seq), Chromatin Immunoprecipitation (ChIP)

Product Details

Immunogen:	This antibody was raised against a recombinant protein corresponding to the N-terminal region of human OGT.
Isotype:	IgG
Characteristics:	OGT (O-linked N-acetylglucosamine (GlcNAc) transferase) catalyzes the transfer of a single N-acetylglucosamine from UDP-GlcNAc to serine or threonine residues in cytoplasmic and nuclear proteins resulting in their modification with a beta-linked N-acetylglucosamine (O-GlcNAc). OGT can glycosylate a large and diverse number of proteins including HCF1, AKT1, MLL5 and histone H2B. It can regulate their cellular processes via cross-talk between glycosylation and phosphorylation or by affecting proteolytic processing. Specifically OGT has been shown to interact directly with TET2 and TET3, enzymes that catalyze the oxidation of 5-methylcytosine on DNA. The TET/OGT interaction leads to GlcNAcylation of HCF1, a protein component of the COMPASS complex, which regulates H3K4 methylation and gene expression.

Product Details

OGT/O-GlcNAc transferase antibody (pAb) was raised in a Rabbit host. It has been validated for use in Chromatin Immunoprecipitation, ChIP-Seq and Western blot, it has been shown to react with Human and Mouse samples.

Purification: Affinity Purified

Target Details

Target: OGT

Alternative Name: OGT/O-GlcNAc transferase ([OGT Products](#))

Molecular Weight: 120 kDa

NCBI Accession: [NP_858058](#)

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

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Restrictions: For Research Use only

Handling

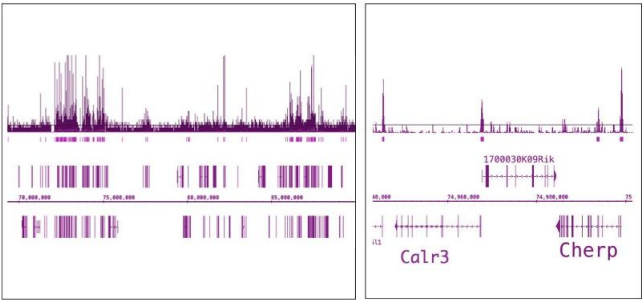
Buffer: Purified IgG in 70 mM Tris (pH 8), 105 mM NaCl, 31 mM glycine, 0.07 mM EDTA, 30 % glycerol and 0.035 % sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

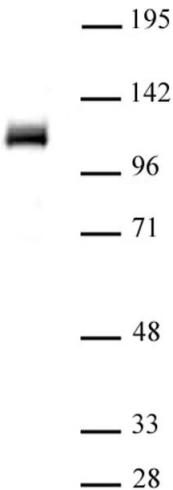
Storage: -20 °C

Storage Comment: Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage.



ChIP DNA-Sequencing

Image 1. OGT/O-GlcNAc transferase (pAb) tested by ChIP-Seq. ChIP was performed using the ChIP-IT High Sensitivity Kit with chromatin from 3 million primary mouse T cells and 5 μ L of OGT antibody. ChIP DNA was sequenced on the Illumina HiSeq and 14 million sequence tags were mapped to identify OGT binding sites. The image on the left shows many OGT binding sites within a 25 million bp region on mouse chromosome 8. The image on the right shows that binding sites are localized to gene promoters as expected based on the known interaction with the H3K4 methylating COMPASS complex.



Western Blotting

Image 2. OGT/O-GlcNAc transferase (pAb) tested by Western blot. Detection of OGT/O-GlcNAc transferase by Western blot. The analysis was performed using 20 μ g HeLa whole-cell extract and OGT/O-GlcNAc transferase (pAb) at a 1:500 dilution.