

Rabbit OGT Polyclonal Antibody | anti-OGT antibody

OGT Antibody

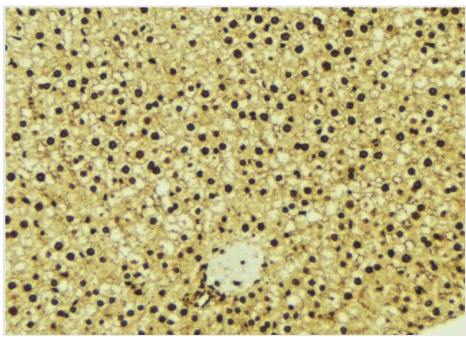
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326504	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

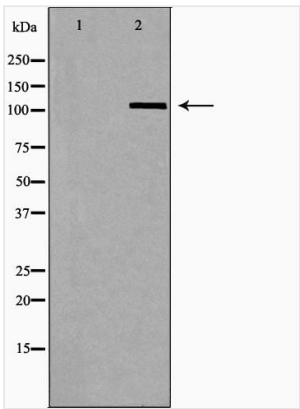
OGT; Polyclonal Antibody; OGT Antibody; FLJ23071; GlcNAc transferase; HRNT1; MGC22921; O GlcNAc; O GlcNAc transferase p110 subunit; O GlcNAc transferase subunit p110; O linked N acetylglucosamine (GlcNAc) transferase (UDP N acetylglucosamine:polypeptide N acetylglucosaminyl transferase); O linked N acetylglucosamine (GlcNAc) transferase; O linked N acetylglucosamine transferase 110 kDa subunit; O-GlcNAc transferase subunit p110; O-linked N-acetylglucosamine transferase 110 kDa subunit; ogt; OGT1_HUMAN; UDP N acetylglucosamine peptide N acetylglucosaminyltransferase 110 kDa subunit; UDP N acetylglucosamine peptide N acetylglucosaminyltransferase GlcNAc transferase; UDP-N-acetylglucosamine--peptide N-acetylglucosaminyltransferase 110 kDa subunit; UDP-N-acetylglucosamine:polypeptide-N-acetylglucosaminyl transferase; Uridinediphospho N acetylglucosamine:polypeptide beta N acetylglucosaminyl transferase; anti-OGT antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	OGT antibody detects endogenous levels of total OGT
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1046
Applicable Applications for anti-OGT antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human OGT
Subcellular Location	Cytoplasm. Nucleus. Mostly in the nucleus.
Tissue Specificity	Highly expressed in pancreas and to a lesser extent in skeletal muscle, heart, brain and placenta. Present in trace amounts in lung and liver.
Predicted Cross Reactivity	Pig, Bovine, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Bovine (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (100%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohiostchemistry)
AAA326504 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 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of Hela whole cell lysates, using OGT Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-OGT antibody	Description: This gene encodes a glycosyltransferase that catalyzes the addition of a single N-acetylglucosamine in O-glycosidic linkage to serine or threonine residues. Since both phosphorylation and glycosylation compete for similar serine or threonine residues, the two processes may compete for sites, or they may alter the substrate specificity of nearby sites by steric or electrostatic effects. The protein contains multiple tetratricopeptide repeats that are required for optimal recognition of substrates. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene. Function: 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). Subunit Structure: Heterotrimer; consists of one 78 kDa subunit and two 110 kDa subunits dimerized via TPR repeats 6 and 7. Component of a THAP1/THAP3-HCFC1-OGT complex (PubMed:20200153). Component of the NSL complex at least composed of MOF/KAT8, KANSL1, KANSL2, KANSL3, MCRS1, PHF20, OGT1/OGT, WDR5 and HCFC1 (PubMed:20018852). Interacts directly with HCFC1; the interaction O-glycosylates HCFC1, regulates its proteolytic processing and transcriptional activity and, in turn, stabilizes OGT in the nucleus (PubMed:12670868, PubMed:20200153, PubMed:21285374, PubMed:23353889). Interacts (via TPRs 1-6) with SIN3A; the interaction mediates transcriptional repression in parallel with histone deacetylase (PubMed:12150998). Interacts (via TPR 5-6) with TET1, TET2 and TET3 (PubMed:23353889, PubMed:23222540). Interacts (via TPR repeats 6 and 7) with ATXN10 (By similarity). Interacts with histone H2B (PubMed:22121020). Interacts with ARNTL/BMAL1 (By similarity). Found in a complex composed of at least SINHCAF, SIN3A, HDAC1, SAP30, RBBP4, OGT and TET1 (By similarity). Interacts with SINHCAF (By similarity). Component of a complex composed of KMT2E/MLL5 (isoform 3), OGT (isoform 1) and USP7; the complex stabilizes KMT2E/MLL5, preventing KMT2E/MLL5 ubiquitination and proteosomal-mediated degradation (PubMed:26678539). Isoform 1 interacts (via TRP repeats) with isoform 3 KMT2E/MLL5 (via N-terminus) (PubMed:26678539, PubMed:23629655). Isoform 1 interacts with USP7 (PubMed:26678539). Post-translational Modifications: Ubiquitinated, leading to its proteasomal degradation. Phosphorylation on Ser-3 or Ser-4 by GSK3-beta positively regulates its activity. Similarity: The TPR repeat domain is required for substrate binding and oligomerization. Belongs to the glycosyltransferase 41 family. O-GlcNAc transferase subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	32307148
NCBI GeneID	8473
NCBI Accession #	NP_858058.1
NCBI GenBank Nucleotide #	NM_181672.2
UniProt Accession #	O15294; Q7Z3K0; Q8WWW8; Q96CC1; Q9UG57
Molecular Weight	Observed: 117 kDa Predicted: 117 kDa

NCBI Official Full Name	UDP-N-acetylglucosamine--peptide N-acetylglucosaminyltransferase 110 kDa subunit isoform 1
NCBI Official Synonym Full Names	O-linked N-acetylglucosamine (GlcNAc) transferase
NCBI Official Symbol	OGT
NCBI Official Synonym Symbols	OGT1; HRNT1; MRX106; HINCUT-1; O-GLCNAC
NCBI Protein Information	UDP-N-acetylglucosamine--peptide N-acetylglucosaminyltransferase 110 kDa subunit
UniProt Protein Name	UDP-N-acetylglucosamine--peptide N-acetylglucosaminyltransferase 110 kDa subunit
UniProt Gene Name	OGT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/ogt-antibody-immunohistochemistry-western-blot-elisa/326504>