



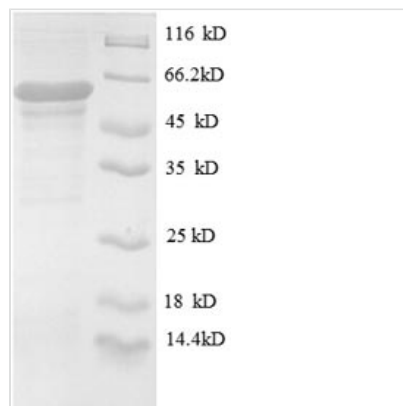
# Recombinant Human UDP-N-acetylglucosamine--peptide N-acetylglucosaminyltransferase 110 kDa subunit (OGT), partial

<b>Product Code</b>	CSB-EP016315HU
<b>Relevance</b>	<p>Catalyzes the transfer of a single N-acetylglucosamine from UDP-GlcNAc to a serine or threonine residue in Cytoplasmic domain 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>
<b>Abbreviation</b>	Recombinant Human OGT protein, partial
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	O15294
<b>Alias</b>	O-GlcNAc transferase subunit p110O-linked N-acetylglucosamine transferase 110 kDa subunit ;OGT
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	≥ 90% as determined by SDS-PAGE.
<b>Sequence</b>	MAEANHFIDLSQIPCNGKAADRHHQDGIHILVNMNGYTKGARNELFALRPAPIQ AMWLGYPGTSGALFMDYIITDQETSPAEEVAEQYSEKLAYMPHTFFIGDHANMF



PHLKKKAVIDFKSNGHIYDNRIVLNGIDLKAFDLSLPDVKIVKMKCPDGGDNADS  
 SNTALNMPVIPMNTIAEAVIEMINRGQIQITINGFSISNGLATTQINNKAATGEEV  
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 PAVGEPNIQQYAQNMGLPQNRIFSPVAPKEEHVRRGQLADVCLDTPLCNGHT  
 TGMDVLWAGTPMVTMPGETLASRVAASQLTCLGCLELIAKNRQEYEDIAVKLG  
 TDLEYLKKVRGKVKQRISPLFNTKQYTMELERLYLQ

<b>Research Area</b>	Neuroscience
<b>Source</b>	E.coli
<b>Target Names</b>	OGT
<b>Expression Region</b>	606-1022aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal 6xHis-SUMO-tagged
<b>Mol. Weight</b>	62.5kDa
<b>Protein Length</b>	Partial

**Image**


(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

**Reconstitution** We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

**Shelf Life** The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.