O-GlcNAc transferase (A-6): sc-74547

**BACKGROUND**

O-linked N-acetylglucosamine (O-GlcNAc) transferase (also designated OGT) 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. O-GlcNAc transferase has been purified from rat liver. It exists as a heterotrimeric complex with two subunits of the same molecular mass and one shorter subunit. Both polypeptides are related; the short subunit band is either a proteolytic product of the polypeptide or the product of an alternative translation start site. O-GlcNAc transferase is expressed as multiple transcripts that are present in different amounts in various human tissues, with the highest levels of expression in pancreas. Immunofluorescence of human cells expressing O-GlcNAc transferase indicated that it is present in both the nucleus and cytosol. HeLa cells expressing O-GlcNAc transferase do not survive well during prolonged incubations, suggesting that this protein may be toxic to the cells.

**CHROMOSOMAL LOCATION**

Genetic locus: OGT (human) mapping to Xq13.1; Ogt (mouse) mapping to Xd.

**SOURCE**

O-GlcNAc transferase (A-6) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of O-GlcNAc transferase of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

O-GlcNAc transferase (A-6) is recommended for detection of O-GlcNAc transferase of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

O-GlcNAc transferase (A-6) is also recommended for detection of O-GlcNAc transferase in additional species, including equine, canine and bovine.

Suitable for use as control antibody for O-GlcNAc transferase siRNA (h): sc-40780, O-GlcNAc transferase siRNA (m): sc-40781, O-GlcNAc transferase siRNA (r): sc-156078, O-GlcNAc transferase shRNA Plasmid (h): sc-40780-SH, O-GlcNAc transferase shRNA Plasmid (m): sc-40781-SH, O-GlcNAc transferase shRNA Plasmid (r): sc-156078-SH, O-GlcNAc transferase shRNA (h) Lentiviral Particles: sc-40780-V, O-GlcNAc transferase shRNA (m) Lentiviral Particles: sc-40781-V and O-GlcNAc transferase shRNA (r) Lentiviral Particles: sc-156078-V.

Molecular Weight of O-GlcNAc transferase: 110 kDa.

Positive Controls: A549 cell lysate: sc-2413, SK-N-MC cell lysate: sc-2237 or SK-N-SH cell lysate: sc-2410.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1. Western blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

2. Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).


**DATA**

![Western blot analysis of O-GlcNAc transferase expression in SK-N-MC nuclear extract (A) and SK-N-MC (B), A549 (C) mouse (D) and rat PBL (E) whole cell lysates.](image)

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our website at www.scbt.com for detailed protocols and support products.