O-Linked N-Acetylglucosamine Antibody (RL2)

**Product Data Sheet**

<table>
<thead>
<tr>
<th>Tested Species Reactivity</th>
<th>Published Species Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virus (Vs)</td>
<td>Amphibian (Am)</td>
</tr>
<tr>
<td>Many (Many)</td>
<td>Bovine (Bv)</td>
</tr>
<tr>
<td>Drosophila (Dm)</td>
<td></td>
</tr>
<tr>
<td>Fish (Fs)</td>
<td></td>
</tr>
<tr>
<td>Human (Hu)</td>
<td></td>
</tr>
<tr>
<td>Invertebrate (Inv)</td>
<td></td>
</tr>
<tr>
<td>Mouse (Ms)</td>
<td></td>
</tr>
<tr>
<td>Not Applicable (N/A)</td>
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<tr>
<td>Non-human primate (Nhp)</td>
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<tr>
<td>Rat (Rt)</td>
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</table>

**Tested Applications**

<table>
<thead>
<tr>
<th>Tested Applications</th>
<th>Dilution *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Blot (WB)</td>
<td>1:1,000</td>
</tr>
<tr>
<td>Immunofluorescence (IF)</td>
<td>1:100</td>
</tr>
<tr>
<td>Immunohistochemistry (Paraffin) (IHC (P))</td>
<td>1:200</td>
</tr>
<tr>
<td>Immunoprecipitation (IP)</td>
<td>Assay dependent</td>
</tr>
<tr>
<td>ChIP assay (ChIP)</td>
<td>Assay Dependent</td>
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<tr>
<td>Dot blot (DB)</td>
<td>1/800</td>
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**Published Applications**

<table>
<thead>
<tr>
<th>Published Applications</th>
<th>Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western Blot (WB)</td>
<td>See publications</td>
</tr>
<tr>
<td>Immunocytochemistry (ICC)</td>
<td>See publications</td>
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<td>Immunoprecipitation (IP)</td>
<td>See publications</td>
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<tr>
<td>ChIP assay (ChIP)</td>
<td>See publications</td>
</tr>
<tr>
<td>ELISA (ELISA)</td>
<td>See publications</td>
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**Details**

<table>
<thead>
<tr>
<th>Catalog Number:</th>
<th>MA1-072</th>
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<tbody>
<tr>
<td>Size:</td>
<td>100 µl</td>
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<tr>
<td>Class:</td>
<td>Monoclonal</td>
</tr>
<tr>
<td>Type:</td>
<td>Antibody</td>
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<tr>
<td>Clone:</td>
<td>RL2</td>
</tr>
<tr>
<td>Host / Isotype:</td>
<td>Mouse / IgG1</td>
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<tr>
<td>Immunogen:</td>
<td>Pore complex-lamina fraction purified from rat liver nuclear envelopes.</td>
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**Form Information**

<table>
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<th>Form:</th>
<th>Liquid</th>
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<tbody>
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<td>Concentration:</td>
<td>2mg/ml</td>
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<tr>
<td>Purification:</td>
<td>Protein A</td>
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<td>Storage Buffer:</td>
<td>PBS</td>
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<tr>
<td>Preservative:</td>
<td>0.05% sodium azide</td>
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<tr>
<td>Storage Conditions:</td>
<td>-20° C, Avoid Freeze/Thaw Cycles</td>
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**General Information**

MA1-072 detects nuclear pore complex (NPC), cytoplasmic and intranuclear O-linked glycoproteins from human, mouse, virus and rat tissues.

MA1-072 has been successfully used in Western blot, immunofluorescence and immunoprecipitation procedures. By Western blot, this antibody recognizes up to eight different proteins from the NPC of approximately 210, 180, 145, 100, 63, 58, 54 and 45 kDa as well as other O-linked glycoproteins outside of the NPC. Immunofluorescence staining of the NPC with MA1-072 primarily labels NPC O-linked glycoproteins and has been successfully used on a wide variety of mammalian cells. Labeling occurs at the NPC, with most of the labeling at the cytoplasmic and/or nucleoplasmic margins, as well as within the nucleus.

The MA1-072 immunogen is pore complex-lamina fraction purified from rat liver nuclear envelopes.

Diffusion of metabolites and small non-nuclear molecules as well as active, mediated import of protein and export of protein and RNA through the nuclear envelope occurs through nuclear pore complexes or NPC’s. NPC’s contain up to 100 different polypeptides which have a combined mass of about 125 megadaltons. The channel available for passive transport through the NPC is about 9-10 nm in diameter while carrier mediated changes in the NPC result in a ~25 nm channel used for larger, actively transported molecules. Of the 100 polypeptides, at least 8 of these are O-linked N-acetylglycosamine-modified in mammalian cells. All of the mammalian O-linked glycoproteins contain multiple copies of phenylalanine, glycine dipeptide repeats dispersed throughout part of their sequence. Studies indicate that the NPC O-linked glycoproteins have a direct role in nuclear protein import.

**Published Species Reactivity**

- Virus (Vs)
- Amphibian (Am)
- Many (Many)
- Bovine (Bv)
- Drosophila (Dm)
- Fish (Fs)
- Human (Hu)
- Invertebrate (Inv)
- Mouse (Ms)
- Not Applicable (N/A)
- Non-human primate (Nhp)
- Rat (Rt)

**Form**

- Liquid

**Concentration**

- 2mg/ml

**Purification**

- Protein A

**Storage Buffer**

- PBS

**Preservative**

- 0.05% sodium azide

**Storage Conditions**

- -20° C, Avoid Freeze/Thaw Cycles
liver nuclear envelopes.
Western Blot with anti-O-Linked N-Acetylglucosamine Monoclonal Antibody [RL2] (MA1-072)

Western blot analysis of mouse cortical brain lysates using O-Linked N-Acetylglucosamine Monoclonal Antibody (MA1-072). Blots containing cortical extracts from 4 individual C57BL/6 mice (Lanes 1-4) were blocked with 5% milk in TBST, and probed with MA1-072 (1:1000), followed by a fluorophore-conjugated goat anti-mouse IgG secondary antibody. Data courtesy of the Innovators Program.
### Species / Dilution

<table>
<thead>
<tr>
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<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Am / 1:1,000</strong></td>
<td>MA1-072 was used in western blot to investigate the relationship between O-GlcNAc glycosylation and the regulation of G2/M transition in Xenopus oocytes.</td>
</tr>
</tbody>
</table>
"O-linked N-acetylglucosaminyltransferase inhibition prevents G2/M transition in Xenopus laevis oocytes."  
Number of Citations: 1  
| **Dm / 1:1000**    | MA1-072 was used in western blot to study the effect of orotidine O-GlcNAcylation on Drosophila growth and its mechanism. |
"Protein O-GlcNAcylation regulates Drosophila growth through the insulin signaling pathway."  
Author(s): Park S, Park SH, Baek JY, Jy YJ, Kim KS, Roth J, Cho JW, Choe KM  
Number of Citations: 1  
| **Fs / 0**         | MA1-072 was used in western blot to investigate the role of protein O-GlcNAcyltransferase in Starfish development. |
"Characterization of O-GlcNAcyltransferase in starfish (Asterina pectinifera) development from fertilization to bipinnaria larva."  
Author(s): Ogawa M, Adachi T, Ikegami S, Kato KH, Yamamoto A, Kamemura K  
Number of Citations: 0  
| **Hu / 1:1,000**   | MA1-072 was used in western blot to investigate the interaction between Sp1 and p62. |
"Interaction of the transcription factor Sp1 with the nuclear pore protein p62 requires the C-terminal domain of p62."  
Author(s): Han I, Roos MD, Kudlow JE  
Number of Citations: 4  
| **Hu / 1:1000**    | MA1-072 was used in ELISA, immunohistochemistry, and western blot to evaluate assays for detecting O-GlcNAc. |
"Immunological detection of O-GlcNAc."  
Author(s): Rex-Mathes M, Koch J, Werner S, Griffith LS, Schmitz B  
Number of Citations: 0  
| **Hu / Not Cited** | MA1-072 was used in western blot to study the mechanism of down-regulation of SP1 activity by 2-DG. |
"Down-regulation of Sp1 activity through modulation of O-glycosylation by treatment with a low glucose mimetic, 2-deoxyglucose."  
Author(s): Kang HT, Ju JW, Cho JW, Hwang ES  
Number of Citations: 1  
| **Hu / 1:1,000**   | MA1-072 was used in western blot to study the functional relationship among the regulating signal glutamine, the transcription factor Sp1, and ASS gene transcription. |
"Glutamine stimulates argininosuccinate synthetase gene expression through cystosolic O-glycosylation of Sp1 in Caco-2 cells."  
Author(s): Brasse-Lagnel C, Fairand A, Lavoine A, Husson A  
Number of Citations: 1  
Hu / Not Cited
MA1-072 was used in western blot to study the effect of HBP activation on glucose-induced serine phosphorylation of IRS-1.
"Activation of the hexosamine pathway leads to phosphorylation of insulin receptor substrate-1 on Ser307 and Ser612 and impairs the phosphatidylinositol 3-kinase/Akt/mammalian target of rapamycin insulin biosynthetic pathway in RIN pancreatic beta-cells."
Author(s): Andreozzi F, D'Alessandris C, Federici M, Laratta E, Del Guerra S, Del Prato S, Marchetti P, Lauro R, Perticone F, Sesti G
Number of Citations: 1

Hu / Not Cited
MA1-072 was used in western blot to investigate the role of O-GlcNAcylation during tau phosphorylation in Alzheimer disease
"O-GlcNAcylation regulates phosphorylation of tau: a mechanism involved in Alzheimer's disease."
Author(s): Liu F, Iqbal K, Grundke-Iqbal I, Hart GW, Gong CX
Number of Citations: 1

Hu / 1:1,000
MA1-072 was used in western blot to investigate the modification of liver X receptor after glucose treatment
"Nuclear receptor liver X receptor is O-GlcNAc-modified in response to glucose."
Author(s): Anthonisen EH, Berven L, Holm S, Nygård M, Nebb HI, Grenning-Wang LM
Number of Citations: 1

Hu / 1:2,000
MA1-072 was used in western blot to investigate the effect of stress on nuclear trafficking
"Dissecting the signalling events that impact classical nuclear import and target nuclear transport factors."
Author(s): Kodika M, Tran D, Morogan A, Qian C, Stochaj U
Number of Citations: 1

Hu / 1:1500
MA1-072 was used in western blot and western blot to investigate the effect of O-GlcNAcylation on phospholamban phosphorylation
"Inhibition of phospholamban phosphorylation by O-GlcNAcylation: implications for diabetic cardiomyopathy."
Author(s): Yokoe S, Asahi M, Takeda T, Otsu K, Taniguchi N, Miyoshi E, Suzuki K
Number of Citations: 1

Hu / 0
MA1-072 was used in western blot to investigate the effect of O-GlcNAcylation on keratins 8 and 18
"O-GlcNAcylation determines the solubility, filament organization, and stability of keratins 8 and 18."
Author(s): Srikanth B, Vaidya MM, Kalraiya RD
Number of Citations: 1

Hu / 1:1000
MA1-072 was used in western blot to investigate the inhibitory effect of GlcNac-selenazoline on O-GlcNAcase
"OGA inhibition by GlcNac-selenazoline."
Author(s): Kim EJ, Love DC, Darout E, Abdo M, Rempel B, Withers SG, Rablen PR, Hanover JA, Knapp S
Number of Citations: 1


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PO Box 117
3747 N. Meridian Road
Rockford, IL 61105 USA
(800) 874-3723
(815) 968-0747
www.thermo.com/pierce
MA1-072 was used in immunocytochemistry and western blot to investigate the importance of O-GlcNAcylation in cell apoptosis

"Elevated O-GlcNAc-dependent signaling through inducible mOGT expression selectively triggers apoptosis."
Author(s): Shin SH, Love DC, Hanover JA
Number of Citations: 1

MA1-072 was used in immunoprecipitation, immunoprecipitation, western blot, and western blot to investigate the effect of O-linked glycosylation no the regulation of InsP(3)R

"Isoform-specific regulation of the inositol 1,4,5-trisphosphate receptor by O-linked glycosylation."
Author(s): Bimboese P, Gibson CJ, Schmidt S, Xiang W, Ehrlich BE
Number of Citations: 1

MA1-072 was used in immunohistochemistry and western blot to investigate the importance of O-GlcNAcylation in hepatocellular carcinoma formation and tumor recurrence after liver transplantation

"O-GlcNAcylation plays a role in tumor recurrence of hepatocellular carcinoma following liver transplantation."
Number of Citations: 1

MA1-072 was used in western blot to study the effect of O-GlcNacase knockout in C. elegans.

"Caenorhabditis elegans ortholog of a diabetes susceptibility locus: oga-1 (O-GlcNacase) knockout impacts O-GlcNAc cycling, metabolism, and dauer."
Author(s): Forsythe ME, Love DC, Lazarus BD, Kim EJ, Prinz WA, Ashwell G, Krause MW, Hanover JA
Number of Citations: 1

MA1-072 was used in western blot to study the effect of intracellular O-glycosylation on plakoglobin stabilization and keratinocyte cell-cell adhesion.

"Stabilization of plakoglobin and enhanced keratinocyte cell-cell adhesion by intracellular O-glycosylation."
Author(s): Hu P, Berkowitz P, Madden VJ, Rubenstein DS
Number of Citations: 1

MA1-072 was used in western blot to study the role of O-GlcNAc protein modification in insulin resistance.

"Reduction of O-GlcNAc protein modification does not prevent insulin resistance in 3T3-L1 adipocytes."
Author(s): Robinson KA, Ball LE, Buse MG
Number of Citations: 1

MA1-072 was used in western blot to investigate the effect of ROS on insulin resistance

"Urea-induced ROS generation causes insulin resistance in mice with chronic renal failure."
Number of Citations: 1
MA1-072 was used in western blot to investigate the effect of O-linked beta-N-acetylglucosamine on insulin signalling in 3T3-L1 adipocytes

"Regulation of insulin receptor substrate 1 (IRS-1)/AKT kinase-mediated insulin signaling by O-Linked beta-N-acetylglucosamine in 3T3-L1 adipocytes."
Author(s): Whelan SA, Dias WB, Thiruneelakantapillai L, Lane MD, Hart GW
Number of Citations: 1

MA1-072 was used in western blot and western blot to investigate the effect of hexosamines on cell growth and apoptosis in rodent pancreatic beta-cells and its mechanism

"Hexosamines stimulate apoptosis by altering SIRT1 action and levels in rodent pancreatic -cells."
Author(s): Lafontaine-Lacasse M, Doré G, Picard F
Number of Citations: 1

MA1-072 was used in immunocytochemistry and western blot to study the role of lipid-droplet-targeted O-GlcNAcase isoform in proteasomal function

"A lipid-droplet-targeted O-GlcNACase isoform is a key regulator of the proteasome."
Author(s): Krembiyehetty CN, Krzeslak A, Love DC, Hanover JA
Number of Citations: 1

MA1-072 was used in western blot to investigate the effect of glucosamine-supplementation on endoplasmic reticulum, hepatic steatosis and atherogenesis in apoE/- mice

"Glucosamine-supplementation promotes endoplasmic reticulum stress, hepatic steatosis and accelerated atherogenesis in apoE/- mice."
Author(s): Beriault DR, Sharma S, Shi Y, Khan MI, Werstuck GH
Number of Citations: 1

MA1-072 was used in immunoprecipitation and western blot to investigate the importance of O-GlcNac in isoflurane-induced cardiac protection

"Role of the O-linked ?-N-acetylglucosamine in the cardioprotection induced by isoflurane."
Author(s): Hirose K, Tsutsumi YM, Tsutsumi R, Shono M, Katayama E,Kinoshita M, Tanaka K, Oshita S
Number of Citations: 1

MA1-072 was used in western blot to investigate the changes of calcium levels in colonic smooth muscle of type 1 diabetic mice

"Altered calcium signaling in colonic smooth muscle of type 1 diabetic mice."
Author(s): Touw K, Chakraborty S, Zhang W, Obukhov AG, Tune JD, Gunst SJ, Herring BP
Number of Citations: 1

MA1-072 was used in immunoprecipitation and western blot to study the effect of O-GlcNAcylation on the replication and transcription activator (RTA) of Kaposi sarcoma-associated Herpes virus

"Suppressive regulation of KSHV RTA with O-GlcNAcylation."
Author(s): Ko YC, Tsai WH, Wang PW, Wu IL, Lin SY, Chen YL, Chen JY, Lin SF
Number of Citations: 1

MA1-072 was used in western blot to study the glycosylation of 26S proteasome subunits in Drosophila melanogaster

"26S proteasome subunits are O-linked N-acetylglucosamine-modified in Drosophila melanogaster."
Author(s): Sümegi M, Hunyadi-Gulyás E, Medzihrazsky KF, Udvardy A
Number of Citations: 6

This product is for In Vitro experimental use only. Not for resale without express authorization.
MA1-072 was used in western blot to investigate the effect of galectin-4 on the p27-mediated activation of the MBP gene

"Galectin-4 is involved in p27-mediated activation of the myelin basic protein promoter."
Author(s): Wei Q, Eviatar-Ribak T, Miskimins WK, Miskimins R
Number of Citations: 1

MA1-072 was used in immunoprecipitation and western blot to characterize a cytosolic factor indispensable for nuclear protein import

"O-linked glycoproteins of the nuclear pore complex interact with a cytosolic factor required for nuclear protein import."
Author(s): Sterne-Marr R, Blevitt JM, Gerace L
Number of Citations: 26

MA1-072 was used in immunohistochemistry, immunoprecipitation and western blot to identify novel glycoproteins from rat liver nuclear envelopes using home-made monoclonal antibodies

"Monoclonal antibodies identify a group of nuclear pore complex glycoproteins."
Author(s): Snow CM, Senior A, Gerace L
Number of Citations: 124

MA1-072 was used in immunoprecipitation and western blot to study the role of the metabolic signals during the modulation of CCAAT/enhancer-binding protein-alpha gene expression

"Modulation of CCAAT/enhancer-binding protein-alpha gene expression by metabolic signals in rodent adipocytes."
Number of Citations: 65

MA1-072 was used in western blot to study the effect of the increased flux through the hexosamine pathway on NF-kappaB-dependent promoter activation

"Flux through the hexosamine pathway is a determinant of nuclear factor kappaB-dependent promoter activation."
Author(s): James LR, Tang D, Ingram A, Ly H, Thai K, Cai L, Scholey JW
Number of Citations: 11

MA1-072 was used in western blot to investigate the role of the O-GlcNAc protein modification in insulin resistance

"Enhanced O-GlcNAc protein modification is associated with insulin resistance in GLUT1-overexpressing muscles."
Author(s): Buse MG, Robinson KA, Marshall BA, Hresco RC, Mueckler MM
Number of Citations: 3

MA1-072 was used in western blot to suggest that O-GlcNAc modification could regulate skeletal muscle physiology

"Identification of O-linked N-acetylgalactosamine proteins in rat skeletal muscle using two-dimensional gel electrophoresis and mass spectrometry."
Author(s): Cieniewski-Bernard C, Bastide B, Lefebvre T, Lemoine J, Mounier Y, Michalski JC
Number of Citations: 1

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MA1-072 was used in western blot to investigate the role of O-GlcNAcylation during tau phosphorylation in Alzheimer disease

"O-GlcNAcylation regulates phosphorylation of tau: a mechanism involved in Alzheimer's disease."
Author(s): Liu F, Iqbal K, Grundke-Iqbal I, Hart GW, Gong CX
Number of Citations: 1

Rt / 1:1,000
MA1-072 was used in western blot to investigate the changes of O-linked N-acetylglucosamine transferase and O-glycosylation of Sp1 during insulin stimulation and diabetes

"Insulin stimulates and diabetes inhibits O-linked N-acetylglucosamine transferase and O-glycosylation of Sp1."
Number of Citations: 3

Rt / Not Cited
MA1-072 was used in western blot to investigate the O-linked N-acetylgucosamine modification of STAT5A and its effect

"Nuclear localization of STAT5A modified with O-linked N-acetylgulcosamine and early involvement in the mammary gland of Hirosaki hairless rat."
Number of Citations: 1

Rt / 1:1,000
MA1-072 was used in western blot to investigate the mechanism for insulin regulation of calmodulin gene expression in liver cells.

"Insulin dynamically regulates calmodulin gene expression by sequential o-glycosylation and phosphorylation of sp1 and its subcellular compartmentalization in liver cells."
Author(s): Goldberg HJ, Whiteside CI, Hart GW, Fantus IG
Number of Citations: 1

Rt / 1:1,000
MA1-072 was used in western blot to investigate the effect of O-glycosylation on plasminogen activator inhibitor-1 gene expression and Sp1 transcriptional activity in glomerular mesangial cells.

"Posttranslational, reversible O-glycosylation is stimulated by high glucose and mediates plasminogen activator inhibitor-1 gene expression and Sp1 transcriptional activity in glomerular mesangial cells."
Author(s): Goldberg HJ, Whiteside CI, Hart GW, Fantus IG
Number of Citations: 1

Rt / 0
MA1-072 was used in immunoprecipitation and western blot to investigate the regulation of the activity of protein kinase c isozymes through posttranslational modifications

"Posttranslational modifications on protein kinase c isozymes. Effects of epinephrine and phorbol esters."
Author(s): Robles-Flores M, Meléndez L, Garcia W, Mendoza-Hernández G, Lam TT, Castañeda-Patlán C, González-Aguilar H
Number of Citations: 1

Rt / 0
MA1-072 was used in western blot to investigate the effect of glucosamine on glomerular mesangial cell proliferation and death and its mechanism

"Influence of glucosamine on glomerular mesangial cell turnover: implications for hyperglycemia and hexosamine pathway flux."
Author(s): James LR, Le C, Scholey JW
Number of Citations: 1
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Unless otherwise stated in the Documentation, this Product is not intended for use in applications regulated by FDA or any other governmental entity.

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"Isoform-specific regulation of the inositol 1,4,5-trisphosphate receptor by O-linked glycosylation."
Author(s): Binboese P, Gibson CJ, Schmidt S, Xiang W, Ehrlich BE
Number of Citations: 1

3 Immunocytochemistry References

<table>
<thead>
<tr>
<th>Species / Dilution</th>
<th>Summary</th>
</tr>
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<tbody>
<tr>
<td>Hu / 1:100</td>
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|                    | "Elevated O-GlcNAc-dependent signaling through inducible mOGT expression selectively triggers apoptosis."
|                    | Author(s): Shin SH, Love DC, Hanover JA |
|                    | Number of Citations: 1 |

| Ms / 0             | MA1-072 was used in immunocytochemistry and western blot to study the role of lipid-droplet-targeted O-GlcNacase isoform in proteasomal function |
|                    | "A lipid-droplet-targeted O-GlcNacase isoform is a key regulator of the proteasome."
|                    | Author(s): Keembiyehetty CN, Krzeslak A, Love DC, Hanover JA |
|                    | Number of Citations: 1 |

| Rt / 0             | MA1-072 was used in immunocytochemistry to investigate the destabilisation of cortical filamentous actin and dysfunction of glucose transport induced by accrual |
|                    | "Fat-induced membrane cholesterol accrual provokes cortical filamentous actin destabilisation and glucose transport dysfunction in skeletal muscle."
|                    | Author(s): Habegger KM, Penque BA, Sealls W, Tackett L, Bell LN, Blue EK, Gallagher PJ, Sturek M, Alloosh MA, Steinberg HO, Considine RV, Eimendorf JS |
|                    | Number of Citations: 1 |

6 Immunohistochemistry References

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<th>Species / Dilution</th>
<th>Summary</th>
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<tr>
<td>Hu / Not Cited</td>
<td>MA1-072 was used in immunohistochemistry to investigate the role of O-linked glycosylation modification of signaling proteins in insulin-dependent activation of endothelial nitric oxide synthase</td>
</tr>
</tbody>
</table>
|                    | "Insulin-dependent activation of endothelial nitric oxide synthase is impaired by O-linked glycosylation modification of signaling proteins in human coronary endothelial cells."
|                    | Number of Citations: 32 |
**12 Immunoprecipitation References**

**Species / Dilution**

**Summary**

**Hu / 1:250**

MA1-072 was used in ChIP assay, immunoprecipitation, and western blot to investigate the effect of delta-lactoferrin posttranslational modification on its function.


"O-GlcNAcylation/phosphorylation cycling at Ser10 controls both transcriptional activity and stability of delta-lactoferrin."

Author(s): Hardivillé S, Hoedt E, Mariller C, Benaïssa M, Pierce A

Number of Citations: 1


**Hu / 0**

MA1-072 was used in immunoprecipitation, immunoprecipitation, western blot, and western blot to investigate the effect of O-linked glycosylation no the regulation of InsP(3)R.


"Isoform-specific regulation of the inositol 1,4,5-trisphosphate receptor by O-linked glycosylation."

Author(s): Bimboese P, Gibson CJ, Schmidt S, Xiang W, Ehrlich BE

Number of Citations: 1


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**Ms / 1:100-1:250**

MA1-072 was used in ELISA, immunohistochemistry, and western blot to evaluate assays for detecting O-GlcNac.


"Immunological detection of O-GlcNAc."

Author(s): Rex-Mathes M, Koch J, Werner S, Griffith LS, Schmitz B

Number of Citations: 0


---

**Rt / Not Cited**

MA1-072 was used in immunohistochemistry, immunoprecipitation and western blot to identify novel glycoproteins from rat liver nuclear envelopes using home-made monoclonal antibodies.


"Monoclonal antibodies identify a group of nuclear pore complex glycoproteins."

Author(s): Snow CM, Senior A, Gerace L

Number of Citations: 124


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**Rt / 1:200**

MA1-072 was used in immunohistochemistry to elucidate the role of O-GlcNAc modification in the pathogenesis of diabetic keratopathy.


"Elevated expression of O-GlcNAc-modified proteins and O-GlcNAc transferase in corneas of diabetic Goto-Kakizaki rats."

Author(s): Akimoto Y, Kawakami H, Yamamoto K, Munetomo E, Hida T, Hirano H

Number of Citations: 5


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Rt / Not Cited
MA1-072 was used in immunoprecipitation and western blot to characterize a cytosolic factor indispensable for nuclear protein import.

"O-linked glycoproteins of the nuclear pore complex interact with a cytosolic factor required for nuclear protein import."
Author(s): Sterne-Marr R, Blevitt JM, Gerace L
Number of Citations: 26

Rt / 5 mg/ml
MA1-072 was used in immunoprecipitation and western blot to investigate the existence of O-GlcNAc residues in the cytoplasmic and nucleoplasmic proteins from rat liver nuclear envelopes using home-made monoclonal antibodies.

"Monoclonal antibodies identify a group of nuclear pore complex glycoproteins."
Author(s): Snow CM, Senior A, Gerace L
Number of Citations: 124

Rt / Not Cited
MA1-072 was used in immunoprecipitation and western blot to investigate the existence of O-linked GlcNAc residues in the cytoplasmic and nucleoplasmic proteins.

"Nuclear pore complex glycoproteins contain cytoplasmically disposed O-linked N-acetylg glucosamine."
Author(s): Holt GD, Snow CM, Senior A, Halliwanger RS, Gerace L, Hart GW
Number of Citations: 65

N/A / Not Cited
MA1-072 was used in immunoprecipitation to study the regulation of carbohydrate-responsive element-binding protein (ChREBP) in the liver.

Diabetes. 2011 May;60(5):1399-413.
"O-GlcNAcylation increases ChREBP protein content and transcriptional activity in the liver."
Author(s): Guinez C, Filhoulaud G, Rayah-Benhamed F, Marmier S, Dubuquoy C, Dentin R, Moldes M, Burnol AF, Yang X, Lefebvre T, Girard J, Postic C
Number of Citations: 6

Nhp / 1:1,000
MA1-072 was used in immunoprecipitation to investigate the O-GlcNAc modification of HIC1 (hypermethylated in cancer 1).

"The tumor suppressor HIC1 (hypermethylated in cancer 1) is O-GlcNAc glycosylated."
Author(s): Lefebvre T, Pinte S, Guérardel C, Deltour S, Martin-Soudant N, Slima-Mannyc MC, Michalski JC, Leprince D
Number of Citations: 1

Ms / Not Cited
MA1-072 was used in immunoprecipitation and western blot to investigate the importance of O-GlcNAc in isoflurane-induced cardiac protection.

"Role of the O-linked ?-N-acetylg glucosamine in the cardioprotection induced by isoflurane."
Author(s): Hirose K, Tsutsumi YM, Tsutsumi R, Shono M, Katayama E, Kinoshita M, Tanaka K, Oshita S
Number of Citations: 1

Ms / 0
MA1-072 was used in immunoprecipitation and western blot to study the effect of O-GlcNAcylation on the replication and transcription activator (RTA) of Kaposi sarcoma-associated Herpes virus.

"Suppressive regulation of KSHV RTA with O-GlcNAcylation."
Author(s): Ko YC, Tsai WH, Wang PW, Wu IL, Lin SY, Chen YL, Chen JY, Lin SF
Number of Citations: 1

Ms / Not Cited
MA1-072 was used in immunoprecipitation to study the role of high glucose in the increase of angiopeitin-2 transcription.

"High glucose increases angiopeitin-2 transcription in microvascular endothelial cells through methylglyoxal modification of mSin3A."
Number of Citations: 1

Ms / Not Cited
MA1-072 was used in immunoprecipitation and western blot to investigate the importance of O-GlcNAc in isoflurane-induced cardiac protection.
<table>
<thead>
<tr>
<th>Rt / 1 ug/ml</th>
<th>MA1-072 was used in immunoprecipitation and western blot to investigate the regulation of the activity of protein kinase c isozymes through posttranslational modifications</th>
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<tr>
<td>Rt / 0</td>
<td>MA1-072 was used in immunoprecipitation, immunoprecipitation, western blot, and western blot to investigate the effect of O-linked glycosylation no the regulation of InsP(3)R</td>
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### 2 ChIP assay References

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<th>Species / Dilution</th>
<th>Summary</th>
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<tr>
<td>Hu / 0</td>
<td>MA1-072 was used in ChIP assay, immunoprecipitation, and western blot to investigate the effect of delta-lactoferrin posttranslational modification on its function</td>
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<tr>
<td>N/A / Not Cited</td>
<td>MA1-072 was used in ChIP assay to investigate the role of transcription factor Sp1 glycosylation during stress-induced expression of p75 neurotrophin receptor</td>
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### 2 ELISA References

<table>
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<th>Species / Dilution</th>
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<td>Bv / 1:500</td>
<td>MA1-072 was used in ELISA, immunohistochemistry, and western blot to evaluate assays for detecting O-GlcNAc</td>
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<tr>
<td>Ms / 1:4000</td>
<td>MA1-072 was used in ELISA to evaluate the efficacy and applications of two monoclonal antibodies against o-glycosidically linked N-acetylglucosamine modification of proteins</td>
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</table>

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