



## Product Information Sheet

### Polyclonal Anti-Glucose transporter 4, *GLUT4*

**Catalogue No.** PA1039

**Lot No.** 08I01

**Ig type:** rabbit IgG

**Size:** 100µg/vial

**Specificity**

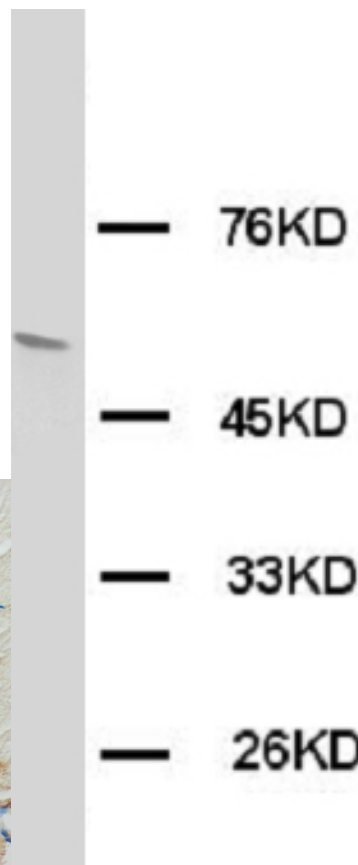
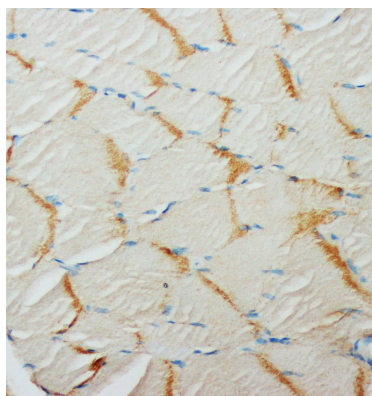
Human, mouse, rat.

No cross reactivity with other proteins.

**Recommended application**

*Western blot*

*Immunohistochemistry(P)*



**Immunogen**

A synthetic peptide corresponding to the C-terminal of human glucose transporter 4, identical to the related rat and mouse sequence.

**Purity**

Immunogen affinity purified.

**Application**

*Western blot*

At 1µg/ml with the appropriate system to detect GLUT4 in cells and tissues.

*Immunohistochemistry(P)*

At 1-2µg/ml to detect GLUT4 in formalin fixed and paraffin embedded tissues.

*Other applications have not been tested.*

*Optimal dilutions should be determined by end user.*

**To reorder contact us at:**

**Antagene, Inc.**

**Toll Free: 1(866)964-2589**

**email: Info@antageneinc.com**

**FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC AND CLINICAL USE.**

**Contents**

Each vial contains 5mg BSA,  
0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>,  
0.05mg Thimerosal, 0.05mg  
NaN<sub>3</sub>.

a concentration of 500µg/ml.

**Storage**

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for longer time.

**Reconstitution**

0.2ml of distilled water will yield

**BACKGROUND**

Facilitated glucose transport by mammalian cells is not a property of a single protein but an activity associated with a family of structurally related proteins. Glucose transporter 4 is a insulin-responsive glucose transporter . It belongs to solute carrier family 2,member 1. Insulin alters the subcellular localization of GLUT4 vesicles in human muscle, and that this effect is impaired equally in insulin-resistant subjects with and without diabetes. A similar pattern of defects cause insulin resistance in human adipocytes. Human insulin resistance involves a defect in GLUT4 traffic and targeting leading to accumulation in a dense membrane compartment from which insulin is unable to recruit GLUT4 to the cell surface.

**REFERENCE**

1. Birnbaum, M. J. : Identification of a novel gene encoding an insulin-responsive glucose transporter protein. *Cell* 57: 305-315, 1989.
2. Bell, G. I.; Kayano, T.; Buse, J. B.; Burant, C. F.; Takeda, J.; Lin, D.; Fukumoto, H.; Seino, S. : Molecular biology of mammalian glucose transporters. *Diabetes Care* 13: 198-208, 1990.
3. Garvey, W. T.; Maianu, L.; Zhu, J.-H.; Brechtel-Hook, G.; Wallace, P.; Baron, A. D. : Evidence for defects in the trafficking and translocation of GLUT4 glucose transporters in skeletal muscle as a cause of human insulin resistance. *J. Clin. Invest.* 101: 2377-2386, 1998.