Polyclonal Anti-Glucose transporter 4, ***GLUT4 (*Sepharose Bead Conjugate)**

Catalogue No. PA1039-S

Lot No. 08I01

Ig type: rabbit IgG

Size: 100μg/vial

Specificity

Human, mouse, rat. No cross reactivity with other proteins.

Recommended application

(Immunoprecipitation(IP)

Immunogen

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

Purification

Immunogen affinity purified.

Formulation

50% slurry in PBS pH 7.2 with 0.01mg NaN_3a_3 preservative.

Storage

Store at 4˚C for frequent use.

Description:

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays

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.