



Product Information Sheet

Polyclonal Anti-Glut1 (Magnetic Bead Conjugate)

Catalogue No. PA1120-M	Immunogen A synthetic peptide corresponding to a sequence at the N-terminal of human Glut1, different from the related mouse sequence by a single amino acid.
Lot No. 08J01	
Ig type: rabbit IgG1	Purification Immunogen affinity purified
Size: 100µg/Vial	Contents Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN ₃ .
Specificity Human, rat, mouse. No cross reactivity with other proteins.	Storage Store at 4°C for frequent use.
Recommended application <i>Immunoprecipitation(IP)</i>	Description: This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation

BACKGROUND

GLUT1, also known as SLC2A1, is a major glucose transporter in the mammalian blood-brain barrier whose gene is mapped to 1p35-p31.3 and contains 10 exons. It is present at high levels in primate erythrocytes and brain endothelial cells. Not only can transport dehydroascorbic acid (the oxidized form of vitamin C) into the brain¹, GLUT1 is also likely to contribute to HTLV-associated disorders through interacting with HTLV envelope glycoproteins². Functionally, GLUT1 deficiency causes a decrease in embryonic glucose uptake and apoptosis, which may be involved in diabetic embryopathy³, by contrast, an increased expression of GLUT1 in some malignant tumors may suggest a role for glucose-derivative tracers to detect in vivo thyroid cancer metastases by positron-emission tomography scanning⁴.

REFERENCE

1. Agus, D. B.; Gambhir, S. S.; Pardridge, W. M.; Spielholz, C.; Baselga, J.; Vera, J. C.; Golde, D. W. : Vitamin C crosses the blood-brain barrier in the oxidized form through the glucose transporters. J. Clin. Invest. 100: 2842-2848, 1997.
2. Manel, N.; Kim, F. J.; Kinet, S.; Taylor, N.; Sitbon, M.; Battini, J.-L. : The ubiquitous glucose transporter GLUT-1 is a receptor for HTLV. Cell 115: 449-459, 2003.
3. Heilig, C. W.; Saunders, T.; Brosius, F. C., III; Moley, K.; Heilig, K.; Baggs, R.; Guo, L.; Conner, D. : Glucose transporter-1-deficient mice exhibit impaired development and deformities that are similar to diabetic embryopathy. Proc. Nat. Acad. Sci. 100: 15613-15618, 2003.
4. Lazar, V.; Bidart, J.-M.; Caillou, B.; Mahe, C.; Lacroix, L.; Filetti, S.; Schlumberger, M. : Expression of the Na(+)/I(-) symporter gene in human thyroid tumors: a comparison study with other thyroid-specific genes. J. Clin. Endocr. Metab. 84: 3228-3234, 1999.

For Research Use Only not for diagnostic and clinical use

Contact: Antagene, Inc. | Tel: 1 (866) 964-2589 | Fax: 1 (888) 225-1868 | Email: Info@antageneinc.com