Product Information Sheet

Polyclonal Anti-Glutamic acid decarboxylase 67, *GAD67* (Magnetic Bead conjugate)

Catalogue No. PA1036-M

Lot No. 03A01

Ig type: rabbit IgG

Size: 200µl

Specificity

Human, mouse, rat.

No cross reactivity with other proteins.

Recommended application

Immunoprecipitation(IP)

Immunogen

A peptide mapping very near the N-terminal end of GAD67 of human origin, identical to the related mouse sequence.

Purity

Immunogen affinity purified.

Contents

Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN_3.

Storage

Store at 4˚C for frequent use.

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

Glutamic acid decarboxylase (GAD) catalyses the conversion of L-glutamic acid to the inhibitory neurotransmitter gamma-aminobutyric acid (GABA). Two forms of human GAD, GAD65 and GAD67, are encoded by two separate genes. Human GAD65 cDNA encodes a Mr 65,000 polypeptide, with 585 amino acid residues, whereas human GAD67 encodes a Mr 67,000 polypeptide, with 594 amino acid residues. GAD67 gene consists of 16 exons, spread over more than 45 kb of genomic DNA. The GAD67 gene contains an additional exon (exon 0) that together with part of exon 1, specifies the 5' untranslated region of GAD67 mRNA. Human GAD67 shows 65% identity to GAD65 and is located in 2q31. GAD67 may play a role in the stiff man syndrome. Deficiency in this enzyme has been shown to lead to pyridoxine dependency with seizures.

REFERENCE

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2. Bu, D.-F.; Erlander, M. G.; Hitz, B. C.; Tillakaratne, N. J. K.; Kaufman, D. L.; Wagner-McPherson, C. B.; Evans, G. A.; Tobin, A. J. : Two human glutamate decarboxylases, 65-kDa GAD and 67-kDa GAD, are each encoded by a single gene. Proc. Nat. Acad. Sci. 89: 2115-2119, 1992.

3. Bu, D.-F.; Tobin, A. J. : The exon-intron organization of the genes (GAD1 and GAD2) encoding two human glutamate decarboxylases (GAD-67 and GAD-65) suggests that they derive from a common ancestral GAD. Genomics 21: 222-228, 1994.

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