Product Name: GAD67 Rabbit Polyclonal Antibody
Catalog #: APRab11249

Summary

Production Name	GAD67 Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	GAD1
Alternative Names	GAD1; GAD; GAD67; Glutamate decarboxylase 1; 67 kDa glutamic acid decarboxylase; GAD-67; Glutamate decarboxylase 67 kDa isoform
Gene ID	2571.0
SwissProt ID	Q99259.The antiserum was produced against synthesized peptide derived from human GAD1. AA range:471-520

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:10000..
Molecular Weight	67kD

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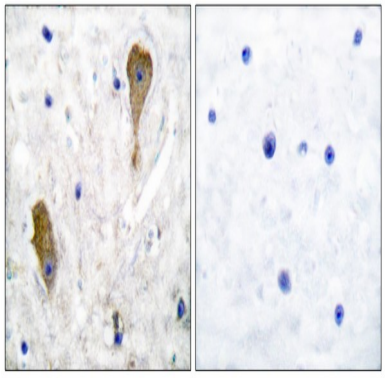
Background

glutamate decarboxylase 1(GAD1) Homo sapiens This gene encodes one of several forms of glutamic acid decarboxylase, identified as a major autoantigen in insulin-dependent diabetes. The enzyme encoded is responsible for catalyzing the production of gamma-aminobutyric acid from L-glutamic acid. A pathogenic role for this enzyme has been identified in the human pancreas since it has been identified as an autoantigen and an autoreactive T cell target in insulin-dependent diabetes. This gene may also play a role in the stiff man syndrome. Deficiency in this enzyme has been shown to lead to pyridoxine dependency with seizures. Alternative splicing of this gene results in two products, the predominant 67-kD form and a less-frequent 25-kD form. [provided by RefSeq, Jul 2008],catalytic activity:L-glutamate = 4-aminobutanoate + CO(2).,cofactor:Pyridoxal phosphate.,disease:Defects in GAD1 are the cause of autosomal recessive symmetric spastic cerebral palsy (SCP) [MIM:603513]. Cerebral palsy (CP) is an heterogeneous group of neurological disorders of movement and/or posture, with an estimated incidence of 1 in 250 to 1'000 live births, making CP one the commonest congenital disabilities. Non-progressive forms of symmetrical, spastic CP have been identified, which show a Mendelian autosomal recessive pattern of inheritance. Patients present developmental delay, mental retardation and sometimes epilepsy as part of the phenotype.,function:Catalyzes the production of GABA.,online information:Glutamate decarboxylase entry,similarity:Belongs to the group II decarboxylase family.,subunit:Homodimer.,tissue specificity:Isoform 3 is expressed in pancreatic islets, testis, adrenal cortex, and perhaps other endocrine tissues, but not in brain.,

Research Area

Alanine; aspartate and glutamate metabolism;beta-Alanine metabolism;Taurine and hypotaurine metabolism;Butanoate metabolism;Type I diabetes mellitus;

Image Data



Immunohistochemistry analysis of paraffin-embedded human brain tissue, using GAD1 Antibody. The picture on the right is blocked with the synthesized peptide.

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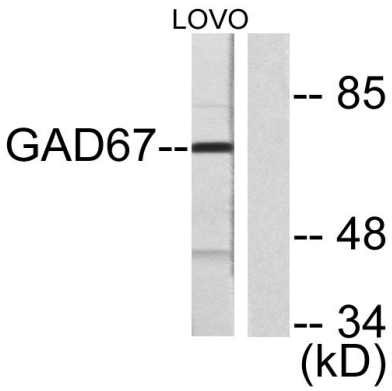

Western blot analysis of lysates from LOVO cells, using GAD1 Antibody. The lane on the right is blocked with the synthesized peptide.

Note

For research use only.