



# GAD67 Polyclonal Antibody

<b>Catalog No</b>	BYab-12726
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	GAD1
<b>Protein Name</b>	Glutamate decarboxylase 1
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human GAD1. AA range:471-520
<b>Specificity</b>	GAD67 Polyclonal Antibody detects endogenous levels of GAD67 protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/10000.. IF 1:50-200
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	GAD1; GAD; GAD67; Glutamate decarboxylase 1; 67 kDa glutamic acid decarboxylase; GAD-67; Glutamate decarboxylase 67 kDa isoform
<b>Observed Band</b>	67kD
<b>Cell Pathway</b>	intracellular,plasma membrane,vesicle membrane,presynaptic active zone,clathrin-sculpted gamma-aminobutyric acid transport vesicle membrane,
<b>Tissue Specificity</b>	[Isoform 1]: Expressed in brain. ; [Isoform 3]: Expressed in pancreatic islets, testis, adrenal cortex, and perhaps other endocrine tissues, but not in brain.
<b>Function</b>	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 a 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

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the group II decarboxylase family.,subunit:Homodimer.,tissue specificity:Isoform 3 is expressed in pancreatic islets, testis

**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],

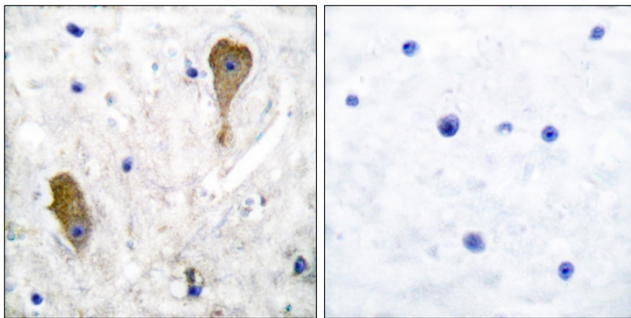
**matters needing attention**

Avoid repeated freezing and thawing!

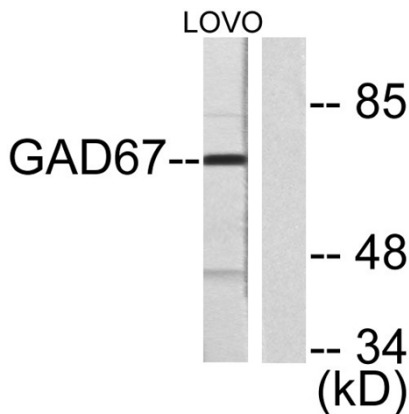
**Usage suggestions**

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

**Products Images**



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



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