



GAD-65/67 Polyclonal Antibody

Catalog No	YP-Ab-12725
Isotype	IgG
Reactivity	Human;Mouse
Applications	WB;IHC;IF;ELISA
Gene Name	GAD1/GAD2
Protein Name	Glutamate decarboxylase 1/2
Immunogen	The antiserum was produced against synthesized peptide derived from human GAD1/2. AA range:545-594
Specificity	GAD-65/67 Polyclonal Antibody detects endogenous levels of GAD-65/67 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/5000. Not yet tested in other applications.
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	GAD1; GAD; GAD67; Glutamate decarboxylase 1; 67 kDa glutamic acid decarboxylase; GAD-67; Glutamate decarboxylase 67 kDa isoform; GAD2; GAD65; Glutamate decarboxylase 2; 65 kDa glutamic acid decarboxylase; GAD-65; Glutamate decarboxylase 65
Observed Band	65kD
Cell Pathway	intracellular,plasma membrane,vesicle membrane,presynaptic active zone,clathrin-sculpted gamma-aminobutyric acid transport vesicle membrane,
Tissue Specificity	[Isoform 1]: Expressed in brain. ; [Isoform 3]: Expressed in pancreatic islets, testis, adrenal cortex, and perhaps other endocrine tissues, but not in brain.
Function	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

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],

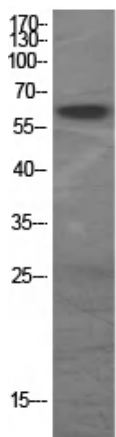
matters needing attention

Avoid repeated freezing and thawing!

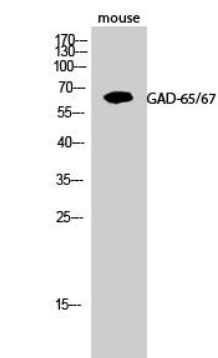
Usage suggestions

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

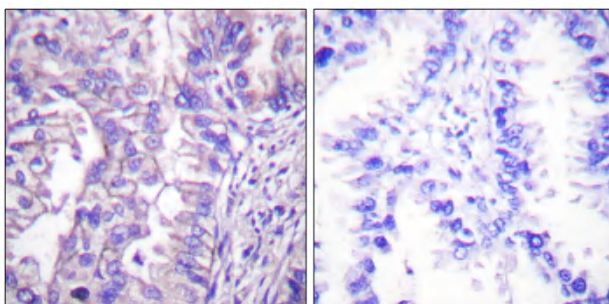
Products Images



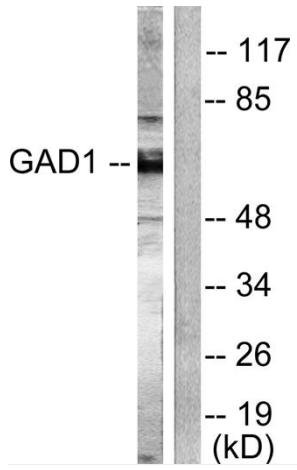
Western Blot analysis of various cells using GAD-65/67 Polyclonal Antibody



Western Blot analysis of mouse cells using GAD-65/67 Polyclonal Antibody



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma tissue, using GAD1/2 Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from mouse brain, using GAD1/2 Antibody. The lane on the right is blocked with the synthesized peptide.