

GAD-65/67 Polyclonal Antibody

Catalog No :	YT1830
Reactivity :	Human;Mouse
Applications :	WB;IHC;IF;ELISA
Target :	GAD-65/67
Fields :	>>Alanine, aspartate and glutamate metabolism;>>beta-Alanine metabolism;>>Taurine and hypotaurine metabolism;>>Butanoate metabolism;>>Metabolic pathways;>>GABAergic synapse;>>Type I diabetes mellitus
Gene Name :	GAD1/GAD2
Protein Name :	Glutamate decarboxylase 1/2
Human Gene Id :	2571/2572
Human Swiss Prot No :	Q99259/Q05329
Mouse Gene Id :	14415/14417
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
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:5000. Not yet tested in other applications.
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Observed Band : 65kD

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

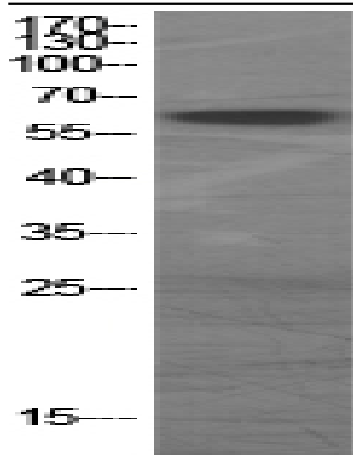
Background : glutamate decarboxylase 1(GAD1) Homo sapiens This gene encodes one of several forms of glutamic acid decarboxylase, identified as a major autoantigen in insulin-dependent diabetes. The enzyme encoded is responsible for catalyzing the production of gamma-aminobutyric acid from L-glutamic 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],

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

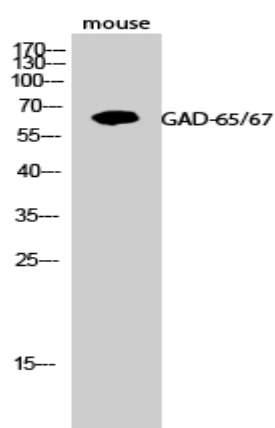
Subcellular Location : intracellular,plasma membrane,vesicle membrane,presynaptic active zone,clathrin-sculpted gamma-aminobutyric acid transport vesicle membrane,

Expression : [Isoform 1]: Expressed in brain. ; [Isoform 3]: Expressed in pancreatic islets, testis, adrenal cortex, and perhaps other endocrine tissues, but not in brain.

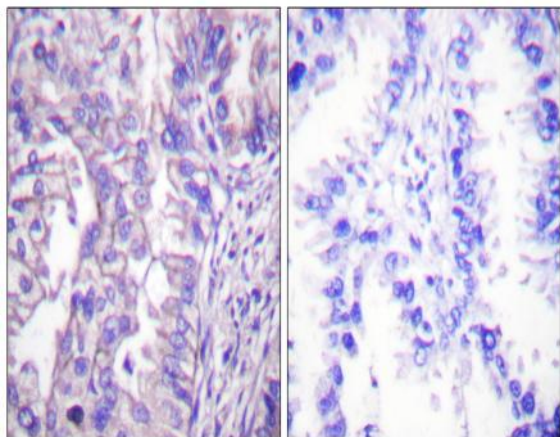
Products Images



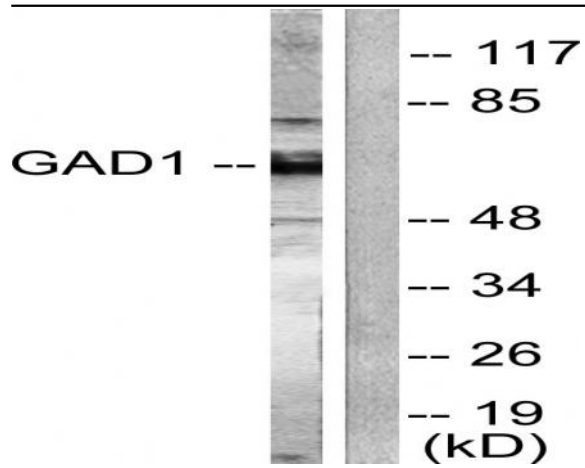
Western Blot analysis of various cells using GAD-65/67 Polyclonal Antibody



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.