10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GAD2 Antibody

Mouse Monoclonal Antibody (Mab)
Catalog # AM2049b

Product Information

Application	WB, E
Primary Accession	Q05329
Other Accession	NP_000809.1
Reactivity	Human, Rat, Mouse
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Names	458CT17.2.4
Calculated MW	65411
Antigen Region	445-473

Additional Information

Gene ID	2572
Other Names	Glutamate decarboxylase 2, 65 kDa glutamic acid decarboxylase, GAD-65, Glutamate decarboxylase 65 kDa isoform, GAD2, GAD65
Target/Specificity	This GAD2 antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 445-473 amino acids from human GAD2.
Dilution	WB~~1:100~250 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GAD2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GAD2 (HGNC:4093)
Synonyms	GAD65
Function	Catalyzes the production of GABA.

Cellular Location	Cytoplasm, cytosol. Cytoplasmic vesicle. Presynaptic cell membrane; Lipid-anchor. Golgi apparatus membrane; Peripheral membrane protein; Cytoplasmic side. Note=Associated to cytoplasmic vesicles In neurons, cytosolic leaflet of Golgi membranes and presynaptic clusters

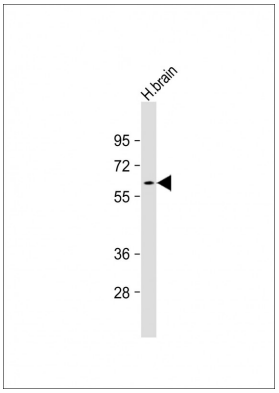
Background

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 autoantibody and an autoreactive T cell target in insulin-dependent diabetes. This gene may also play a role in the stiff man syndrome. Alternative splicing results in multiple transcript variants that encode the same protein.

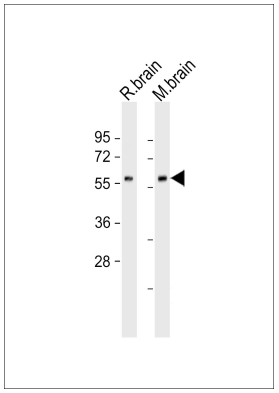
References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Jia, P., et al. Schizophr. Res. 122 (1-3), 38-42 (2010) :
Ruano, G., et al. Pharmacogenomics 11(7):959-971(2010)
Pinheiro, A.P., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B (5), 1070-1080 (2010) :
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :

Images



Anti- at 1:500 dilution + human brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 65 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



All lanes : Anti-GAD2 Antibody at 1:500 dilution Lane 1: rat brain lysate Lane 2: mouse brain lysate Secondary Goat Anti-mouse IgG, (H+L),Peroxidase conjugated at 1/10000 dilution. Predicted band size : 65411 Da Blocking/Dilution buffer: 5% NFDM/TBST.