10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

GAD2 Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11118C

Specification

GAD2 Antibody (Center) - Product Information

Application	**WB, IHC-P, IF,E**
Primary Accession	Q05329
Other Accession	Q05683, P48321, P48320, NP_001127838.1, NP_000809.1
Reactivity	**Human**
Predicted	**Mouse, Pig, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**65411**
Antigen Region	**109-138**

GAD2 Antibody (Center) - 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 rabbits immunized with a KLH conjugated synthetic peptide between 109-138 amino acids from the Central region of human GAD2.

Dilution
WB~~1:1000
IHC-P~~1:50~100
IF~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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 (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

GAD2 Antibody (Center) - Protein Information

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Name GAD2 (HGNC:4093)

Synonyms GAD65

Function Catalyzes the production of GABA.

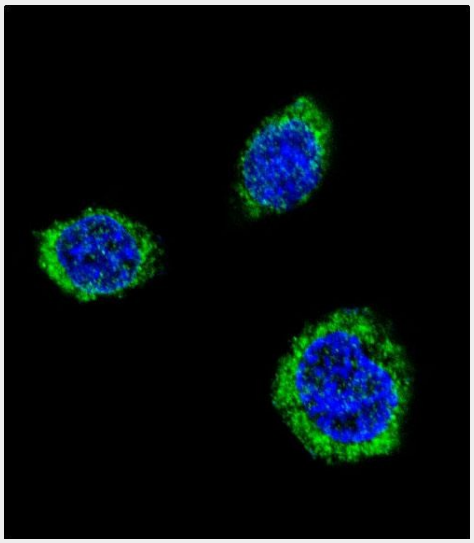
Cellular Location
Cytoplasm, cytosol. Cytoplasmic vesicle. Presynaptic cell membrane; Lipid-anchor. Golgi apparatus membrane; Peripheral membrane protein; Cytoplasmic side. Note=Associated to cytoplasmic vesicles In neurons, cytosolic leaflet of Golgi membranes and presynaptic clusters

GAD2 Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GAD2 Antibody (Center) - Images



Confocal immunofluorescent analysis of GAD2 Antibody (Center)(Cat. #AP11118c) with 293 cell followed by Alexa Fluor® 488-conjugated goat anti-rabbit lgG (green). DAPI was used to stain the cell nuclear (blue).

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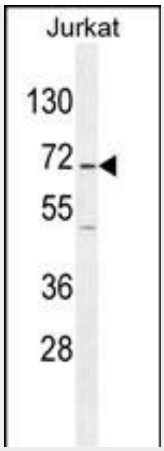
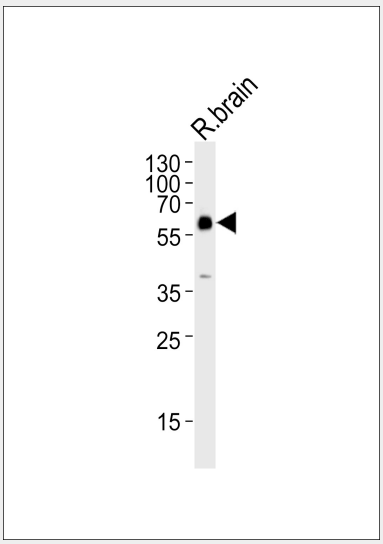
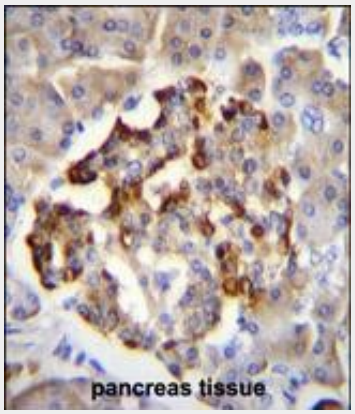


GAD2 Antibody (Center) (Cat. #AP11118c) western blot analysis in Jurkat cell line lysates (35ug/lane).This demonstrates the GAD2 antibody detected the GAD2 protein (arrow).



Western blot analysis of lysate from rat brain tissue lysate, using GAD2 Antibody (Center)(Cat. #AP11118c). AP11118c was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug.



GAD2 Antibody (Center) (Cat. #AP11118c)immunohistochemistry analysis in formalin fixed and paraffin embedded human pancreas tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of GAD2 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

GAD2 Antibody (Center) - 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.

GAD2 Antibody (Center) - 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) :

GAD2 Antibody (Center) - Citations

- Feedback modulation of neural network synchrony and seizure susceptibility by Mdm2-p53-Nedd4-2 signaling.