

Datasheet for ABIN674679  
**anti-GAD antibody (AA 455-594)**[Go to Product page](#)

## 4 Images

## Overview

Quantity:	100 µL
Target:	GAD (GAD1)
Binding Specificity:	AA 455-594
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This GAD antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

## Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human GAD67
Isotype:	IgG
Specificity:	Belongs to the group II decarboxylase family.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Purified by Protein A.

## Target Details

Target:	GAD (GAD1)
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## Target Details

Alternative Name:	Gad67 ( <a href="#">GAD1 Products</a> )
Background:	<p>Synonyms: GAD, SCP, CPSQ1, Glutamate decarboxylase 1, 67 kDa glutamic acid decarboxylase, GAD-67, Glutamate decarboxylase 67 kDa isoform, GAD1, GAD67</p> <p>Background: Glutamic Acid Decarboxylase (GAD) catalyzes the conversion of L glutamate to g-aminobutyric acid (GABA), the principal inhibitory neurotransmitter in the brain, and a putative paracrine signal molecule in pancreatic islets. GAD has a restricted tissue distribution. It is highly expressed in the cytoplasm of GABAergic neurons in the central nervous system (CNS) and pancreatic beta cells. It is also present in other non-neuronal tissues such as testis, oviduct and ovary. GAD is also transiently expressed in non-GABAergic cells of the embryonic and adult nervous system, suggesting its involvement in development and plasticity. GAD exists as two isoforms, GAD65 and GAD67 (molecular masses of 65 and 67 kD, respectively) that are encoded by two different genes. GAD65 is an amphiphilic, membraneanchored protein, (585 amino acid residues) and is encoded on human chromosome 10. GAD67 is a cytoplasmic protein (594 amino acid residues) and is encoded on chromosome 2. There is 64 % amino acid identity between the two isoforms, with the highest diversity located at the N terminus, which in GAD65 is required for targeting the enzyme to GABA-containing secretory vesicles. The two isoforms appear to have distinct intraneuronal distribution in the brain. GAD65 has been identified as an autoantigen in insulindependent diabetes mellitus (IDDM) and stiff-man syndrome (SMS), IDDM is an autoimmune disease that results from T cell mediated destruction of pancreatic insulin-secreting beta cells. Islet-reactive T cells and primarily to GAD65 (also named beta cell autoantigen) can be detected in peripheral blood of 80 % of recent-onset IDD patients and in pre-diabetic high-risk subjects before onset of clinical symptoms. This suggests that GAD may be an important marker in the early stages of the disease.</p>

Gene ID: 2571

UniProt: [Q99259](#)

## Application Details

Application Notes:	WB 1:300-5000
	ELISA 1:500-1000
	IHC-P 1:200-400
	IHC-F 1:100-500
	IF(IHC-P) 1:50-200
	IF(IHC-F) 1:50-200
	IF(ICC) 1:50-200

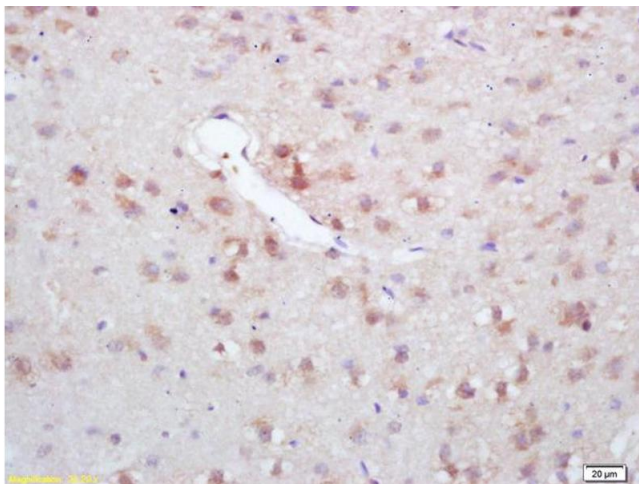
## Application Details

Restrictions: For Research Use only

## Handling

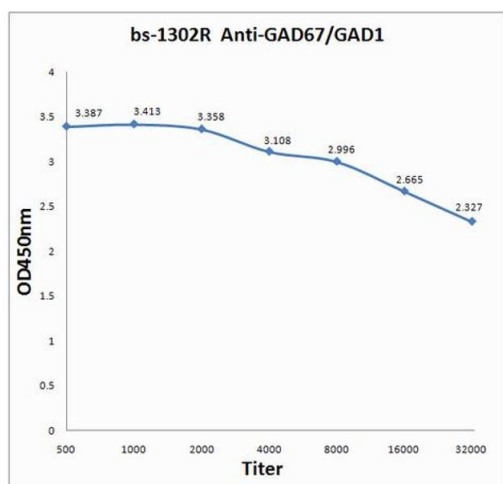
Format:	Liquid
Concentration:	1 µg/µL
Buffer:	0.01M TBS( pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C, -20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

## Images



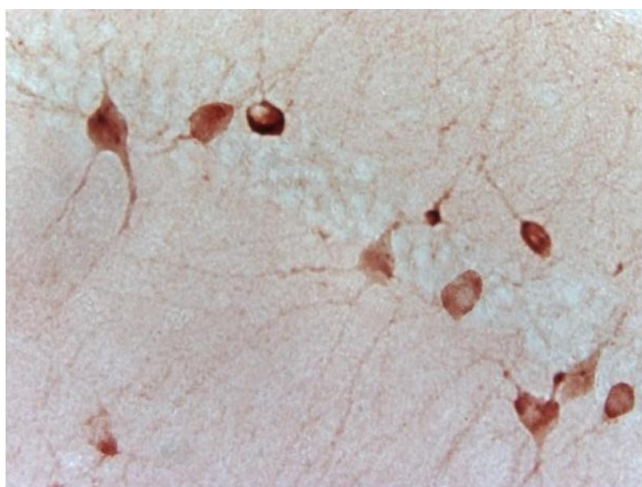
### Immunohistochemistry

**Image 1.** Formalin-fixed and paraffin embedded rat brain labeled with Rabbit Anti GAD67/GAD1 Polyclonal Antibody, Unconjugated (ABIN674679) at 1:200 followed by conjugation to the secondary antibody and DAB staining



## ELISA

**Image 2.** Antigen: 0.2 µg/100 µL Primary: Antiserum, 1:500, 1:1000, 1:2000, 1:4000, 1:8000, 1:16000, 1:32000; Secondary: HRP conjugated Goat Anti-Rabbit IgG at 1: 5000; TMB staining; Read the data in MicroplateReader by 450nm.



## Immunohistochemistry

**Image 3.** Mouse hippocampus labeled with Anti-GAD-67 Polyclonal Antibody, Unconjugated (ABIN674679) followed by conjugation to the secondary antibody and DAB staining

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN674679.