

# PRODUCT INFORMATION



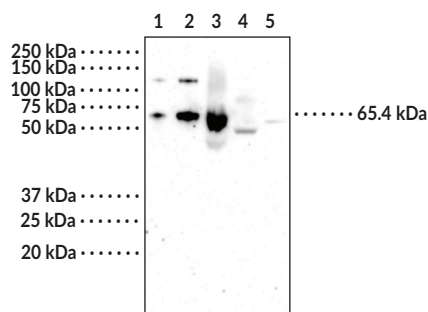
## GAD65 Monoclonal Antibody (Clone 9B10)

Item No. 31360

### Overview and Properties

<b>Contents:</b>	This vial contains 100 µg of protein G affinity-purified antibody
<b>Synonyms:</b>	GAD2, GAD64, Glutamate Decarboxylase 2, Glutamate Decarboxylase 65 kDa Isoform, Glutamic Acid Decarboxylase 65
<b>Immunogen:</b>	Full-length recombinant human GAD65
<b>Species Reactivity:</b>	(+) Human, mouse
<b>Uniprot No.:</b>	Q05329
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥3 years
<b>Storage Buffer:</b>	PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
<b>Clone:</b>	9B10
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG1
<b>Applications:</b>	ELISA and Western blot (WB); the recommended starting dilution for ELISA and WB is 1:1,000. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Image



Lane 1: GAD65 protein - 5 ng  
Lane 2: GAD65 protein - 20 ng  
Lane 3: Mouse brain lysate - 40 µg  
Lane 4: Human brain cerebellum lysate - 50 µg  
Lane 5: Human brain medulla oblongata lysate - 50 µg

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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## Description

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Glutamic acid decarboxylase 65 (GAD65), also known as GAD2, catalyzes the production of GABA from L-glutamic acid and is encoded by *GAD2* in humans.<sup>1</sup> It is primarily expressed in pancreatic islets but is also expressed in neurons of the central and peripheral nervous systems and is localized to vesicular membranes.<sup>1</sup> Autoantibodies against GAD65 have been found in patients with type 1 diabetes mellitus or gestational diabetes mellitus and have been used as biomarkers of type 1 diabetes mellitus.<sup>1</sup> GAD65 autoantibodies have also been found in patients with the rare neurological disorder stiff-man syndrome or autoimmune epilepsy.<sup>2,3</sup> Cayman's GAD65 Monoclonal Antibody (Clone 9B10) can be used for ELISA and Western blot (WB) applications. The antibody recognizes GAD65 at 65.4 kDa from human and mouse samples.

## References

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1. Krueger, C., Stöcker, W., and Schlosser, M. Glutamic acid decarboxylase autoantibodies. *Autoantibodies*. Shoenfeld, Y., Meroni, P.L., and Gershwin, M., editors, 2<sup>nd</sup> edition, *Elsevier Science* (2007).
2. McKeon, A. and Tracy, J.A. GAD65 neurological autoimmunity. *Muscle Nerve* **56(1)**, 15-27 (2017).
3. Cabezudo-García, P., Mena-Vázquez, N., Villagrán-García, M., *et al.* Efficacy of antiepileptic drugs in autoimmune epilepsy: A systematic review. *Seizure* **59**, 72-76 (2018).

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