

# GAD65 Monoclonal Antibody (144)

Catalog NumberMA5-18053

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Human, Mouse, Rat
Host/Isotope	Mouse / IgG1	Published species	Human
Class	Monoclonal	Tested Applications	Dilution *
Type	Antibody	Flow Cytometry (Flow)	Assay-dependent
Clone	144	Immunoprecipitation (IP)	Assay-dependent
Immunogen	Synthetic peptide: GSGFWSFGSEDGSGDSEN conjugated to KLH, corresponding to amino acids 4-22 of Human GAD65	Western Blot (WB)	1 µg/mL
Conjugate	Unconjugated	Published Applications	
Form	Liquid	Western Blot (WB)	See 1 publications below
Concentration	1 mg/mL	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Purification	Affinity chromatography		
Storage buffer	PBS		
Contains	0.09% sodium azide		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

## Product specific information

This target has a predicted molecular weight of 65 kDa.

## Background/Target Information

GAD65 (glutamic acid decarboxylase-65) are present in autoimmune disorders such as insulin-dependent (type1) diabetes mellitus (IDDM), stiff man syndrome and polyendocrine autoimmune disease. Auto-antibodies to GAD65 are present in 60-70% of individuals with newly diagnosed IDDM and thus are important markers for disease activity. These auto-antibodies usually recognize conformation-dependent regions on GAD65 and rarely bind to the second isoform, GAD67. Auto-antibodies to GAD67 are found in only 15% of recent-onset IDDM patients and most of this binding can be blocked with GAD65, suggesting shared epitopes between the two isoforms of GAD.

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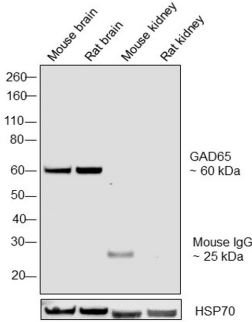
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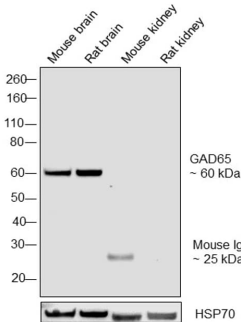
GAD65 Antibody (MA5-18053) in WB

Western blot was performed using Anti-GAD65 Monoclonal Antibody (144), (Product # MA5-18053) and a 60 kDa band corresponding to GAD65 was observed in the tissues tested along with Mouse IgG at ~25kDa. Tissue extracts (30 µg lysate) of Mouse brain (Lane 1), Rat brain (Lane 2), Mouse kidney (Lane 3), and Rat kidney (Lane 4) were electrophoresed using Novex® NuPAGE® 4-12 % Bis-Tris gel (Product # NP0321BOX). Resolved proteins were then transferred onto a nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1 ug/ml) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L), Superclonal™ Recombinant Secondary Antibody, HRP conjugate (Product # A28177, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).



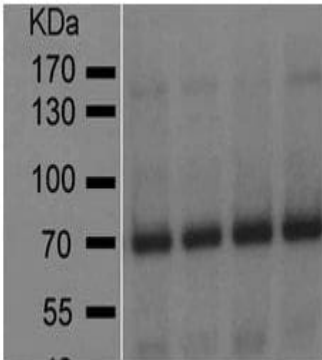
GAD65 Antibody (MA5-18053)

Antibody specificity was demonstrated by detection of differential basal expression of the target across tissue tested owing to their inherent genetic constitution. Relative expression of GAD65 was observed in Mouse brain, Rat brain in comparison to Mouse kidney and Rat kidney using Anti-GAD65 monoclonal antibody (144) (Product # MA5-18053) in Western Blot. (<https://doi.org/10.1073/pnas.95.17.10055>). {RE}



GAD65 Antibody (MA5-18053) in WB

Western blot analysis of GAD2/GAD65 in tissue lysates from human brain synaptosomes (20 µg) using a GAD2 /GAD65 monoclonal antibody (Product # MA5-18053) at a dilution of 1:1000. Tissue lysates were blocked in PBST for 18 hours at 4°C prior to analysis.



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PubMed References For GAD65 Monoclonal Antibody (144)

1 Western Blot References

Species / Dilution	Summary
Human / Not Cited	MA5-18053 was used in western blot to test if base excision repair-deficient cells are a source of pre-cancerous cells
	Nucleic acids research ( 2015; 43: 3667)
	<b>"Cells deficient in base-excision repair reveal cancer hallmarks originating from adjustments to genetic instability."</b> Author(s):Markkanen E,Fischer R,Ledentcova M,Kessler BM,Dianov GL PubMed Article URL: <a href="http://dx.doi.org/10.1093/nar/gkv222">http://dx.doi.org/10.1093/nar/gkv222</a>

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