Qty: 100 µg/200 µL

Mouse anti-GAD65

Catalog No. 39-8200

Lot No.

Mouse anti-GAD65

FORM
This monoclonal antibody is supplied as a 200 µL aliquot at a concentration of 0.5 mg/mL in PBS, pH 7.4, containing 0.1% sodium azide. This antibody is highly purified from mouse ascites by protein A chromatography.

CLONE: ZG002 **ISOTYPE:** Mouse IgG_1-kappa

IMMUNOGEN
Recombinant protein corresponding to the N-terminal region of the human GAD65 protein, which is 84% and 88% homologous with mouse and rat, respectively

SPECIFICITY
This antibody is specific for the GAD65 (glutamate decarboxylase 2, 65 kDa glutamic acid decarboxylase) protein. On Western blots, it identifies the target band at ~65 kDa.

REACTIVITY
Reactivity has been confirmed with human, mouse and rat brain homogenates.

Sample	ELISA	Western Blotting
Human	ND	+++
Mouse	ND	+++
Rat	ND	+++
Immunogen	+++	+++

(Excellent +++, Good++, Poor +, No reactivity 0, Not applicable N/A, Not Determined ND)

USAGE
Working concentrations for specific applications should be determined by the investigator. Appropriate concentrations will be affected by several factors, including secondary antibody affinity, antigen concentration, sensitivity of detection method, temperature and length of incubations, etc. The suitability of this antibody for applications other than those listed below has not been determined. The following concentration ranges are recommended starting points for this product.

ELISA: 0.1-1.0 µg/mL
Western Blotting: 1 µg/mL

STORAGE
Store at 2-8°C for up to one month. Store at –20°C for long-term storage. Avoid repeated freezing and thawing.

(cont'd)

BACKGROUND

GAD65 (glutamate decarboxylase 2, 65 kDa glutamic acid decarboxylase) is one of two isoforms of glutamic acid decarboxylase, identified as a major autoantigen in insulin-dependent diabetes.[1-2] The GAD65 enzyme is responsible for catalyzing the production of gamma-aminobutyric acid (GABA), the major inhibiting neurotransmitter in the vertebrate central nervous system, 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.[3]

REFERENCES

1. Baekkeskov S, et al. *Nature* 347:151-156, 1990.
2. Bu D-F, et al. *PNAS* 89:2115-2119, 1992.
3. Lohmann T, et al. *Lancet* 356:31-35, 2000.

RELATED PRODUCTS

Product	***Conjugate***	***Cat. No.***
Protein A	Sepharose 4B	10-1041
rec-Protein G	Sepharose 4B	10-1241
ZyMAX™ Goat anti-rabbit IgG	Unconjugated	81-6100
ZyMAX™ Goat anti-mouse IgG	Unconjugated	81-6500

Secondary antibody conjugates.

Conjugate	***Goat anti-rabbit IgG (H+L)***	***Goat anti-mouse IgG (H+L)***	***Ex/Em****	***Fluorescence similar to--***
Alexa Fluor® 488	A11008	A11001	495/519	FITC
Alexa Fluor® 555	A21428	A21422	555/565	Cy3
Alexa Fluor® 594	A11012	A11005	590/617	Texas Red
Alexa Fluor® 647	A21244	A21235	650/668	Cy5
HRP	81-6120	81-6520	NA**	NA
AP	81-6122	81-6522	NA	NA
Biotin	B2770	B2763	NA	NA

*Excitation/emission (nm); **Not applicable

For additional secondary antibody conjugates, visit www.invitrogen.com/antibodies

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MZ060214