Advanced Targeting Systems

6352 CORTE DEL ABETO, STE B
CARLSBAD, CA 92011 USA
01.858.642.1988 • WWW.ATSBIO.COM

Antibody to GAD65, B96
HUMAN MONOCLONAL

Catalog Number:	AB-N13
Quantity:	50 micrograms
Format:	Purified on a Protein A column; PBS (0.14 M Sodium Chloride; 0.003 M Potassium Chloride; 0.002 M Potassium Phosphate; 0.01 M Sodium Phosphate; pH 7.4), no preservative.
Host:	Human
Isotype:	IgG_1 lambda light chain
Clone:	B96
Immunogen:	peripheral blood B cells immortalized with Epstein-Barr virus

Background: Antibodies to glutamic acid decarboxylase-65 (GAD65) are present in autoimmune disorders such as insulin-dependent (type1) diabetes mellitus (IDDM), stiff man syndrome, and polyendocrine autoimmune disease. Autoantibodies to GAD65 are present in 60-70% of individuals with newly diagnosed IDDM, and thus are important markers for disease activity. These autoantibodies usually recognize conformation-dependent regions on GAD65 and rarely bind to the second isoform, GAD67. Autoantibodies 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.

Specificity & Preparation: This antibody is specific for the 65-kDa isoform of glutamic acid decarboxylase (GAD65), targeting the IDDM-E2 region (amino acids 451-570), and does not bind GAD67. To create this cell line, peripheral blood B-cells were obtained from a donor who tested positive for GAD65 autoantibodies and were immortalized with Epstein-Barr virus.

Usage: Applications include immunoprecipitation (antibody supernatant 1:5,000-1:10,000)[1], immunohistochemistry[1], and protein footprinting (10 μl serum).[1] This antibody does not work in Western blotting[1].

Storage: Store the antibody at -20°C for one year. Avoid repeated freezing and thawing. Gently spin down material 5-10 seconds in a microfuge before use.

Scan to view all product references.

Selected References:

1. Tremble J, Morgenthaler NG, Vlug A, Powers AC, Christie MR, Scherbaum WA, Banga JP (1997) Human B cells secreting immunoglobulin G to glutamic acid decarboxylase-65 from a nondiabetic patient with multiple autoantibodies and Graves' disease: a comparison with those present in type1 diabetes. *J Clin Endocrinol Metab* 82(8):2664-2670.

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