

Monoclonal Antibody for N-terminal GAD65 Detection

Biomaterial - Antibody

Biomaterial Description

This monoclonal antibody specifically targets the N-terminal region of glutamate decarboxylase 65 (GAD65), a key enzyme in GABA synthesis. Developed using a synthetic peptide corresponding to amino acids 4–22 of human GAD65, the antibody demonstrates high specificity and affinity for the native conformation of GAD65 in human and rodent tissues. It is suitable for use in immunocytochemistry, immunohistochemistry, and immunoprecipitation, and has been validated across multiple platforms including Western blot and ELISA.

Applications

- -Autoimmune disease research, particularly Type 1 diabetes and Stiff Person Syndrome
- -Neurobiology studies involving GABAergic neurons and synaptic regulation
- -Diagnostic assay development for GAD65 autoantibody detection
- -Protein localization and trafficking studies in neuronal tissues
- -Immunoprecipitation of native GAD65 for downstream proteomic analysis

Advantages

- -Epitope specificity: Recognizes a unique N-terminal epitope not targeted by other commercial antibodies
- -Cross-species reactivity: Validated in human, rat, and mouse tissues
- -High affinity and low background: Enables clear signal in immunostaining and biochemical assays
- -Versatile utility: Compatible with multiple assay formats including ELISA, Western blot, and immunoprecipitation
- -Supports conformational studies: Binds native GAD65, facilitating structural and functional analyses

Distributor Information

Technology ID

INV 42144

Category

Research Tools/Biological Materials/Antibody

Authors

Santica Marcovina

View online



Non-Exclusive License available.

References

 Hampe, C. S., Lundgren, P., Daniels, T. L., Hammerle, L. P., Marcovina, S. M., & Lernmark, A.(2001), https://www.sciencedirect.com/science/article/pii/S0165572800004239, https://www.sciencedirect.com/journal/journal-of-neuroimmunology, 113, 63-71