Datasheet for ABIN6939482

anti-GAD antibody (AA 72-135)

3 Images

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Overview

Quantity:	100 µg
Target:	GAD (GAD1)
Binding Specificity:	AA 72-135
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This GAD antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Flow Cytometry (FACS), Coating (Coat)

Product Details

Immunogen:	Recombinant human GAD1 (GAD67) protein fragment (around aa 72-135) (exact sequence is proprietary)
Clone:	GAD1-2563
Isotype:	IgG2b kappa
Specificity:	This MAb recognizes a protein of 67 kDa, which is identified as glutamic acid decarboxylase 1 (GDA1). There are two forms of glutamic acid decarboxylases (GADs) that are found in the brain: GAD65 (also known as GAD2) and GAD67 (also known as GAD1. GAD65 and GAD67 are members of the group II decarboxylase family of proteins and are responsible for catalyzing the rate-limiting step in the production of GABA (-aminobutyric acid) from L-glutamic acid. Although both GAD's are found in the brain, GAD65 localizes to synaptic vesicle membranes in nerve terminals, while GAD67 is distributed throughout the cell. GAD67 is responsible for the basal

Product Details

	levels of GABA synthesis. In the case of a heightened demand for GABA in neurotransmission, GAD65 will transiently activate to assist in GABA production. The loss of GAD65 is detrimental and can impair GABA neurotransmission, however the loss of GAD67 is lethal.
Purification:	Purified by Protein A/G

Target Details

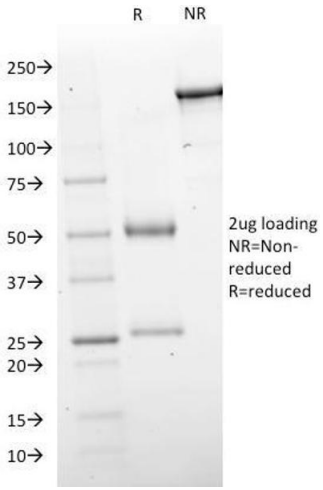
Target:	GAD (GAD1)
Alternative Name:	GAD1 (GAD1 Products)
Molecular Weight:	67kDa
Gene ID:	2571
UniProt:	Q99259

Application Details

Application Notes:	Positive Control: T98G or K-562 or HEK293 cells. Pancreas. Known Application: ELISA (For coating, order antibody without BSA), Flow Cytometry (1-2 µ g/million cells), Western Blot (0.5-1 µg/mL), Optimal dilution for a specific application should be determined.
Restrictions:	For Research Use only

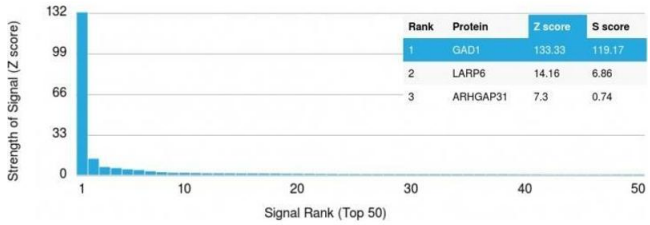
Handling

Concentration:	200 µg/mL
Buffer:	10 mM PBS with 0.05 % BSA & 0.05 % azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-80 °C
Storage Comment:	Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.
Expiry Date:	24 months



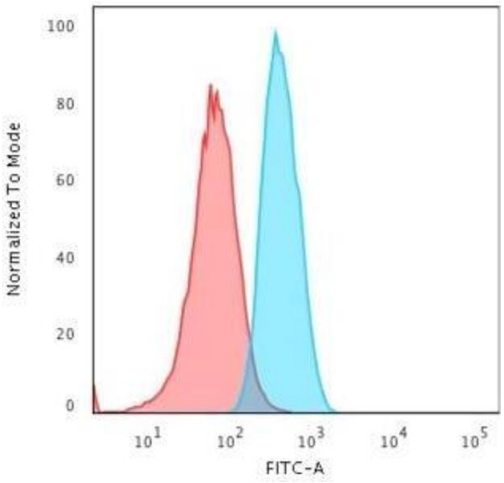
SDS-PAGE

Image 1. SDS-PAGE Analysis Purified GAD1 (GAD67) Mouse Monoclonal Antibody (GAD1/2563). Confirmation of Purity and Integrity of Antibody.



Protein Array

Image 2. Analysis of Protein Array containing more than 19,000 full-length human proteins using GAD1 (GAD67) Mouse Monoclonal Antibody (GAD1/2563) Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.



Flow Cytometry

Image 3. Flow Cytometric Analysis of T98G cells using GAD1 (GAD67) Mouse Monoclonal Antibody (GAD1/2563) followed by Goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red).