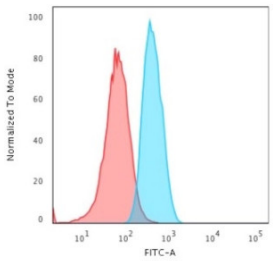
GAD67 Antibody / GAD1 [clone GAD1/2563] (V3859)

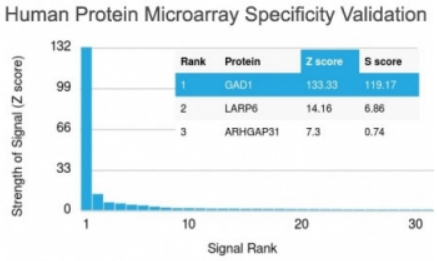
Catalog No.	Formulation	Size
V3859-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3859-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3859SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

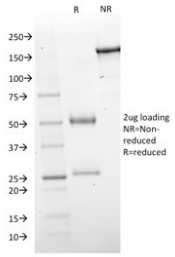
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	GAD1/2563
Purity	Protein G affinity chromatography
UniProt	Q99259
Localization	Cytoplasmic
Applications	ELISA (order BSA/sodium Azide-free Format For Coating) : Flow Cytometry : 1-2ug/10^6 cells Western Blot : 0.5-1ug/ml
Limitations	This GAD67 antibody is available for research use only.



GAD67 Antibody T98G FACS. Flow cytometry analysis of human T98G cells stained with GAD67 Antibody demonstrates a pronounced right-shifted fluorescence population relative to the isotype control, consistent with expression of Glutamate decarboxylase 67 / GAD1 within neural-associated cellular populations. This GABA synthesis enzyme antibody supports characterization of inhibitory neurotransmitter pathway-associated protein expression and neural differentiation signaling in glioblastoma-derived cells. Blue=GAD67 antibody, Red=isotype control.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using GAD67 antibody (clone GAD1/2563). These results demonstrate the foremost specificity of the GAD1/2563 mAb.
Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free GAD67 antibody (clone GAD1/2563) as confirmation of integrity and purity.

Description

GAD67 Antibody recognizes a protein of 67kDa, 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 (gamma-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 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.

For highly specific detection of GAD67 in inhibitory neurotransmitter pathway studies, see our GAD67 Antibody / GABA Synthesis Enzyme Antibody page featuring strong HuProt(TM) microarray specificity validation data.

Application Notes

Optimal dilution of the GAD67 antibody should be determined by the researcher.

Immunogen

A portion of amino acids 72-135 from the human protein were used as the immunogen for this GAD67 antibody.

Storage

Store the GAD67 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).