

## GAD2 / GAD65 (GABAergic Neuronal Marker) Antibody

Mouse Monoclonal Antibody [Clone GAD2/1960]

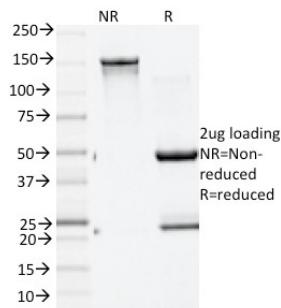
Catalog No	Format	Size
2572-MSM1-P0	Purified Ab with BSA and Azide	200ug/ml
2572-MSM1-P1	Purified Ab with BSA and Azide	200ug/ml
2572-MSM1-P1ABX	Purified Ab WITHOUT BSA and Azide	1.0mg/ml

Applications	Tested Dilution
Immunohistochemistry (IHC)	1-2ug/ml

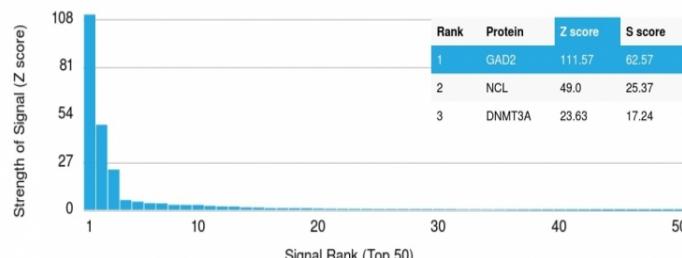
Product Details	
Clone	GAD2/1960
Gene Name	GAD2
Immunogen	Recombinant human GAD2 (GAD65) protein fragment (around aa 6-99) (exact sequence is proprietary)
Host	Mouse
Clonality	Monoclonal
Isotype / Light Chain	IgG2b / Kappa
Mol. Weight of Antigen	65kDa
Cellular Localization	Cell junction, Cytoplasm, Cytoplasmic vesicle, Cytosol, Golgi apparatus membrane, Presynaptic cell membrane, Synapse
Species Reactivity	Human
Positive Control	Pancreas or Brain (IHC).

\*Optimal dilution for a specific application should be determined.

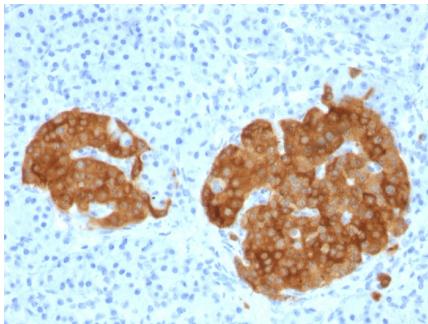
### Product Images for GAD2 / GAD65 (GABAergic Neuronal Marker) Antibody



SDS-PAGE Analysis of Purified GAD2 (GAD65) Mouse Monoclonal Antibody (GAD2/1960). Confirmation of Integrity and Purity of Antibody.



Analysis of Protein Array containing more than 19,000 full-length human proteins using GAD2 (GAD65) Mouse Monoclonal Antibody (GAD2/1960) Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (Monoclonal Antibody) (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 ( $SD, \Delta$ ) 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  $SD, \Delta$ ) between the Z-score. S-score therefore represents the relative target specificity of a Monoclonal Antibody to its intended target. A Monoclonal Antibody is considered to be specific to its intended target, if the Monoclonal Antibody has an S-score of at least 2.5. For example, if a Monoclonal Antibody 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 Monoclonal Antibody to protein X is equal to 29.



Formalin-fixed, paraffin-embedded human Pancreas stained with GAD2 (GAD65)  
Mouse Monoclonal Antibody (GAD2/1960).

### Specificity & Comments

This MAb recognizes a protein of 65kDa, which is identified as glutamic acid decarboxylase 2 (GDA2). It is responsible for catalyzing the production of gamma-aminobutyric acid from L-glutamic acid. There are two forms of glutamic acid decarboxylases (GAD s) that are found in the brain: GAD2 (also known as GAD65) and GAD1 (also known as GAD67). GAD1 and GAD2 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, GAD2 localizes to synaptic vesicle membranes in nerve terminals, while GAD1 is distributed throughout the cell. A pathogenic role for GAD2 is identified in the human pancreas since it has been identified as an autoantibody and an auto-reactive T cell target in insulin-dependent diabetes.

### Research Areas

Cardiovascular, Neural Stem Cells, Neuroscience, Transcription Factors

### Known Applications & Suggested Dilutions

Immunohistochemistry (Formalin-fixed) (0.1-0.2ug/ml for 30 min at RT)(Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95&degC followed by cooling at RT for 20 minutes) | Optimal dilution for a specific application should be determined.

### Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis.

There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

### Supplied As

200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

### Storage and Stability

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.