

## Product Datasheet

# GAD65/GAD2 Mouse Monoclonal Antibody (orb654392)

|                             |   |
|-----------------------------|---|
| <b>Catalog Number</b>       | orb654392   |
| <b>Category</b>             | Antibodies  |
| <b>Description</b>          | Anti-GAD65/GAD2 Antibody (monoclonal, B9I4). Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.      |
| <b>Target</b>               | Glutamate decarboxylase 2   |
| <b>Clonality</b>            | Monoclonal  |
| <b>Species/Host</b>         | Mouse   |
| <b>Isotype</b>              | Mouse IgG2a   |
| <b>Conjugation</b>          | Unconjugated  |
| <b>Reactivity</b>           | Human, Mouse, Rat   |
| <b>Form/Appearance</b>      | Lyophilized   |
| <b>Concentration</b>        | 500 µg/ml   |
| <b>Buffer/Preservatives</b> | Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na <sub>2</sub> HPO <sub>4</sub> , 0.01mg NaN <sub>3</sub> .  |
| <b>Reconstitution</b>       | Add 0.2ml of distilled water will yield a concentration of 500ug/ml.  |
| <b>Purification</b>         | Immunogen affinity purified.  |
| <b>Immunogen</b>            | A synthetic peptide corresponding to a sequence at the N-terminus of human GAD65, different from the related mouse and rat sequences by one amino acid. |
| <b>UniProt ID</b>           | <b>Q05329</b>   |

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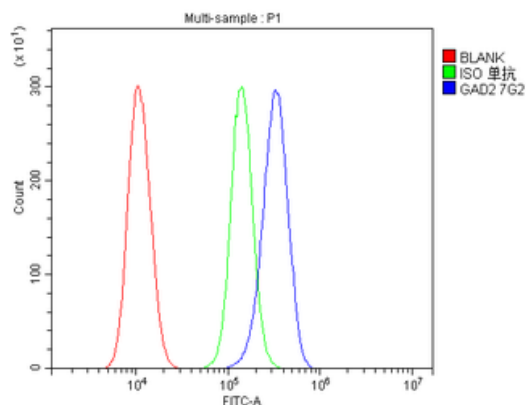
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|                            |   |
|----------------------------|---|
| <b>MW</b>                  | 62 kDa  |
| <b>Tested applications</b> | FC, ICC, IF, IHC, WB  |
| <b>Dilution range</b>      | Western blot, 0.1-0.5µg/ml, Mouse, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1µg/ml, Human Immunocytochemistry/Immunofluorescence, 4µg/ml, Human Flow Cytometry (Fixed), 1-3µg/1x10 <sup>6</sup> cells, Human |
| <b>Cross Reactivity</b>    | No cross-reactivity with other proteins.  |
| <b>Antibody Type</b>       | Primary Antibody  |
| <b>Clone Number</b>        | B914  |
| <b>Storage</b>             | Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.   |
| <b>Note</b>                | For research use only   |
| <b>Expiration Date</b>     | 12 months from date of receipt.   |



Flow Cytometry analysis of 293T cells using anti-GAD65/GAD2 antibody. Overlay histogram showing 293T cells (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-GAD65/GAD2 Antibody (1 µg/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (5-10 µg/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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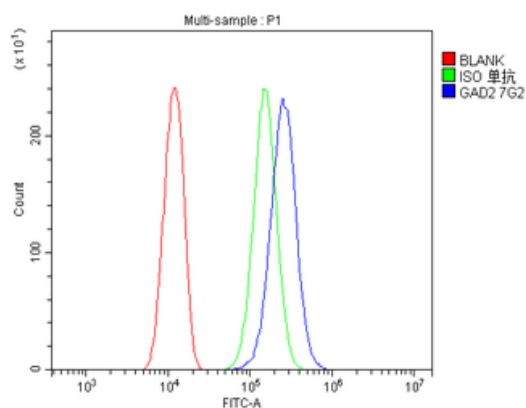
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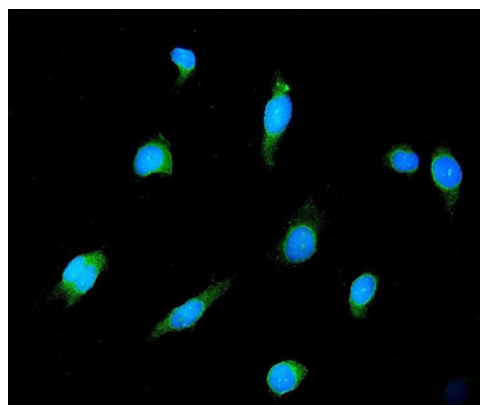
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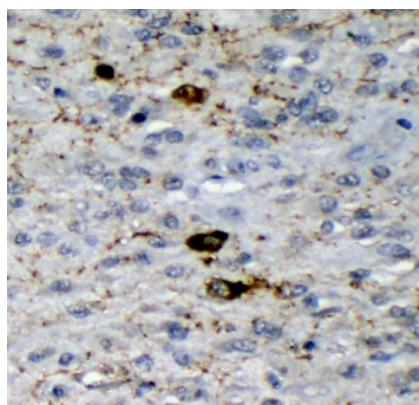
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Flow Cytometry analysis of U20S cells using anti-GAD65/GAD2 antibody. Overlay histogram showing U20S cells (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-GAD65/GAD2 Antibody (1  $\mu\text{g}/1 \times 10^6$  cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (5-10  $\mu\text{g}/1 \times 10^6$  cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1  $\mu\text{g}/1 \times 10^6$ ) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



IF analysis of GAD65/GAD2 using anti-GAD65/GAD2 antibody. GAD65/GAD2 was detected in immunocytochemical section of Hela cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 4  $\mu\text{g}/\text{mL}$  mouse anti-GAD65/GAD2 Antibody overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC analysis of GAD65/GAD2 using anti-GAD65/GAD2 antibody. GAD65/GAD2 was detected in paraffin-embedded section of human glioma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1  $\mu\text{g}/\text{ml}$  mouse anti-GAD65/GAD2 Antibody overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.

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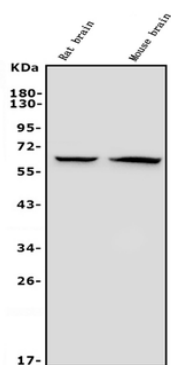
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Western blot analysis of GAD65/GAD2 using anti-GAD65/GAD2 antibody. Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50 ug of sample under reducing conditions. Lane 1: rat brain tissue lysates, Lane 2: mouse brain tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-GAD65/GAD2 antigen affinity purified monoclonal antibody at 0.5  $\mu$ g/mL overnight at 4°C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for GAD65/GAD2 at approximately 62 KD. The expected band size for GAD65/GAD2 is at 62 KD.

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