SunLong Biotech Co.,LTD
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Rabbit Anti-GAD65 antibody

SL0400R

Product Name	GAD65
Chinese Name	谷氨酸脱羧酶-65 抗体(C 端）
Alias	65 kDa glutamic acid decarboxylase; DCE 2; DCE2; GAD 2; GAD 65; GAD-2; GAD-65;GAD 65, GAD2; Glutamate Decarboxylase 2 (pancreatic islets and brain 65kDa); Glutamate Decarboxylase 2; Glutamate Decarboxylase 65; Glutamate decarboxylase 65 kDa isoform; Glutamic Acid Decarboxylase 2; Glutamic Acid Decarboxylase 65.
Research Area	Neurobiology The new supersedes the old
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Mouse, Rat, (predicted: Chicken, Dog, Pig, Cow,)
Applications	WB=1:500-2000,ICC/IF=1:100-500,Flow-Cyt=1ug/Test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	65kDa
Cellular localization	cytoplasmic The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human GAD65: 501-585/585
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed PubMed

This gene encodes one of several forms of glutamic acid decarboxylase, identified as a major autoantigen in insulin-dependent diabetes. The enzyme encoded is responsible for catalyzing the production of gamma-aminobutyric acid from L-glutamic acid. A pathogenic role for this enzyme has been identified in the human pancreas since it has been identified as an autoantibody and an autoreactive T cell target in insulin-dependent diabetes. This gene may also play a role in the stiff man syndrome. Alternative splicing results in multiple transcript variants that encode the same protein. [provided by RefSeq, Oct 2008]

Product Detail

Function:
Catalyzes the production of GABA.

Subunit:
Homodimer.

Subcellular Location:
Cytoplasm, cytosol. Cytoplasmic vesicle. Cell junction, synapse, presynaptic cell membrane; Lipid-anchor. Golgi apparatus membrane; Peripheral membrane protein; Cytoplasmic side. Note=Associated to cytoplasmic vesicles. In neurons, cytosolic leaflet of Golgi membranes and presynaptic clusters.

Post-translational modifications:
Phosphorylated; which does not affect kinetic parameters or subcellular location. Palmitoylated; which is required for presynaptic clustering.

Similarity:
Belongs to the group II decarboxylase family.

SWISS:
Q05329

Gene ID:
2572

Database links:

Entrez Gene: 2572 Human

Entrez Gene: 14417 Mouse

Entrez Gene: 24380 Rat

SwissProt: Q05329 Human

SwissProt: P48320 Mouse

SwissProt: Q05683 Rat

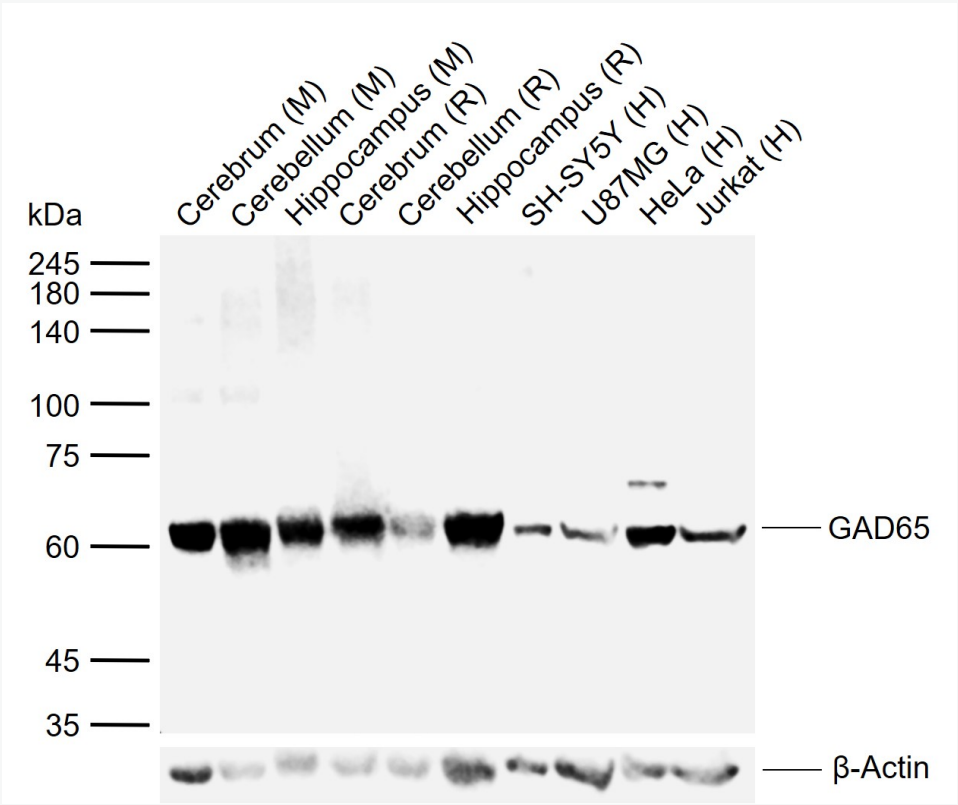
Unigene: 231829 Human

Unigene: 4784 Mouse

Unigene: 29951 Rat

谷氨酸脱羧酶-65 用于 I II 型 Diabetes 研究的很重要的蛋白。

Product Picture



Sample:

Lane 1: Mouse Cerebrum tissue lysates

Lane 2: Mouse Cerebellum tissue lysates

Lane 3: Mouse Hippocampus tissue lysates

Lane 4: Rat Cerebrum tissue lysates

Lane 5: Rat Cerebellum tissue lysates

Lane 6: Rat Hippocampus tissue lysates

Lane 7: Human SH-SY5Y cell lysates

Lane 8: Human U87MG cell lysates

Lane 9: Human HeLa cell lysates

Lane 10: Human Jurkat cell lysates

Primary: Anti-GAD65 (SL0400R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 65 kDa

Observed band size: 62 kDa

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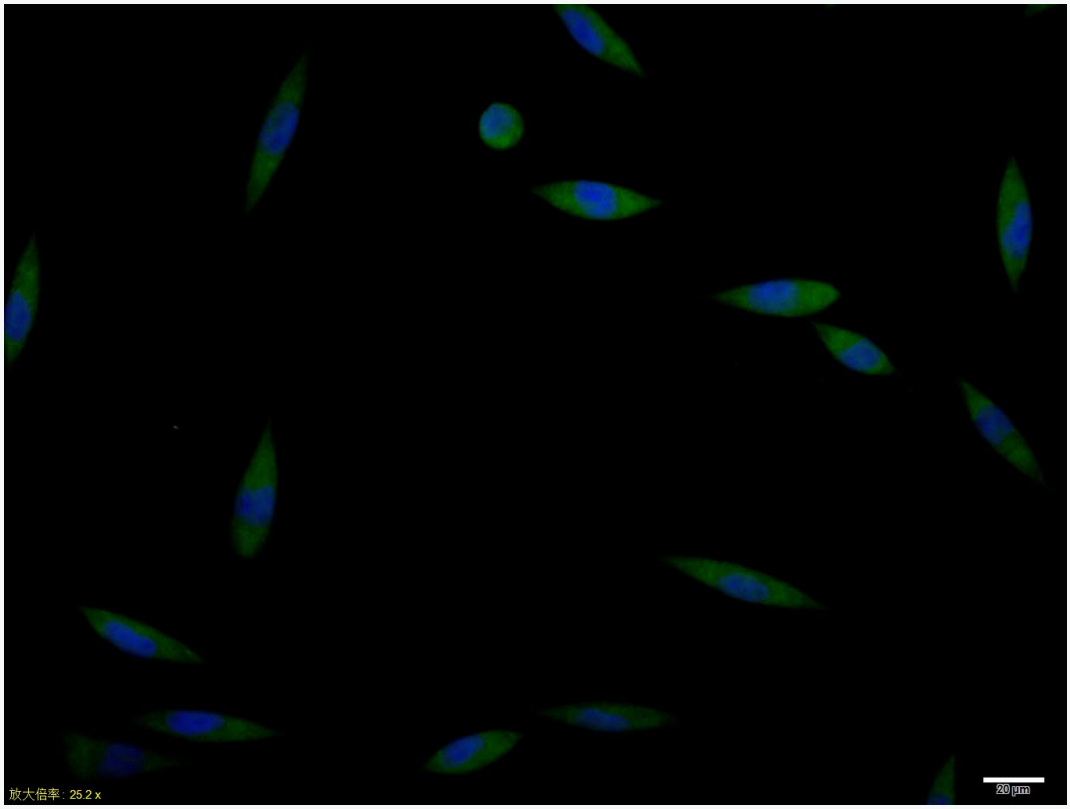

SHSY5Y cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (GAD65) polyclonal Antibody, Unconjugated (SL0400R) 1:100, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

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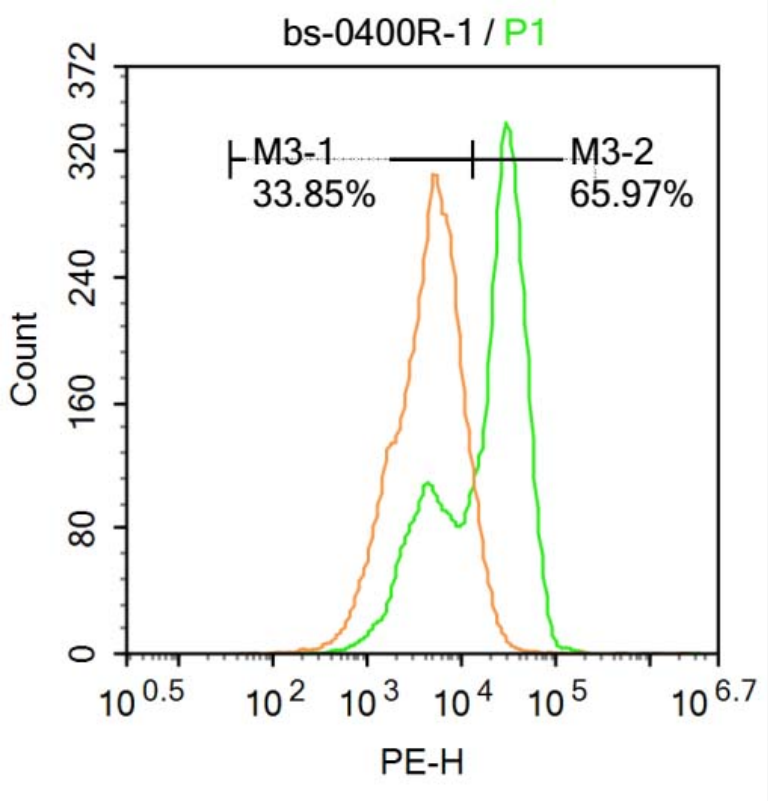
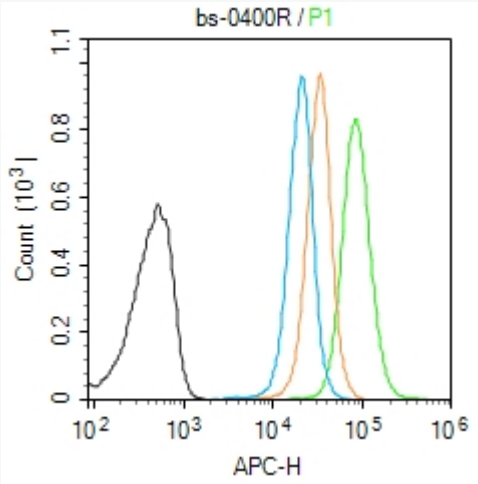


Molt-4 cells were fixed with 4% PFA for 10min at room temperature,permeabilized with 0.1% PBST for 20 min at room temperature, and incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with GAD65 Antibody(SL0400R)at 1:100 dilution in blocking buffer and incubated for 30 min at room temperature, washed twice with 2%BSA in PBS, followed by secondary antibody incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells stained with primary antibody (green), and isotype control (orange).



Blank control (Black line): Molt4 (Black).

Primary Antibody (green line):Rabbit Anti-GAD65 antibody (SL0400R)

Dilution: 3µg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647

Dilution: 3µg /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.