

# Anti-GAD67 Antibody [JM11-11]

ET1703-71



<b>Product Type:</b>	Recombinant Rabbit monoclonal IgG, primary antibodies
<b>Species reactivity:</b>	Human, Mouse, Rat
<b>Applications:</b>	WB, IP, IHC-P
<b>Molecular Wt:</b>	Predicted band size: 67 kDa
<b>Clone number:</b>	JM11-11

**Description:** There are two forms of glutamic acid decarboxylases (GADs) that are found in the brain: GAD-65 (also known as GAD2) and GAD-67 (also known as GAD1, GAD or SCP). GAD-65 and GAD-67 are members of the group II decarboxylase family of proteins and are responsible for catalyzing the rate limiting step in the production of GABA (g-aminobutyric acid) from L-glutamic acid. Although both GADs are found in the brain, GAD-65 localizes to synaptic vesicle membranes in nerve terminals, while GAD-67 is distributed throughout the cell. GAD-67 is responsible for the basal levels of GABA synthesis. In the case of a heightened demand for GABA in neurotransmission, GAD-65 will transiently activate to assist in GABA production. The loss of GAD-65 is detrimental and can impair GABA neurotransmission, however the loss of GAD-67 is lethal. Due to alternative splicing, two isoforms exist for GAD-67, the predominant GAD-67 form and the minor GAD-25 form. GAD-25 is not expressed in brain but can be found in a variety of endocrine tissues.

**Immunogen:** Synthetic peptide within Human GAD67 aa 60-99 / 594.

**Positive control:** HeLa cell lysate, SH-SY5Y cell lysate.

**Subcellular location:** Cytoplasm, Plasma Membrane.

**Database links:** SwissProt: Q99259 Human | P48318 Mouse | P18088 Rat

**Recommended Dilutions:**

<b>WB</b>	1:500-1:1,000
<b>IP</b>	1:50-1:100
<b>IHC-P</b>	1:200

**Storage Buffer:** 1\*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

**Storage Instruction:** Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

**Purity:** Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

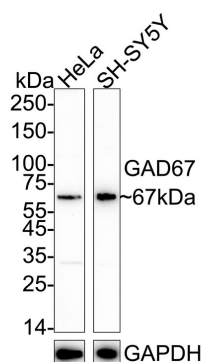
Service mail:support@huabio.cn

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## Images

**Fig1:** Western blot analysis of GAD67 on different lysates with Rabbit anti-GAD67 antibody (ET1703-71) at 1/1,000 dilution.

Lane 1: HeLa cell lysate  
Lane 2: SH-SY5Y cell lysate



Lysates/proteins at 10 µg/Lane.

Predicted band size: 67 kDa

Observed band size: 67 kDa

Exposure time: 25 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET1703-71) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Li JT et al. Repeated Blockade of NMDA Receptors During Adolescence Impairs Reversal Learning and Disrupts GABAergic Interneurons in Rat Medial Prefrontal Cortex. *Front Mol Neurosci* 9:17 (2016).
2. Fu Q et al. MHC-I promotes apoptosis of GABAergic interneurons in the spinal dorsal horn and contributes to cancer induced bone pain. *Exp Neurol* 286:12-20 (2016).

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