

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human GAD1/GAD67 in direct ELISAs and detects human, mouse, and rat GAD1/GAD67 in Western blots. In Western blots, less than 1% cross-reactivity with recombinant human GAD2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human GAD1/GAD67 Ala2-Asn97 Accession # Q99259
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

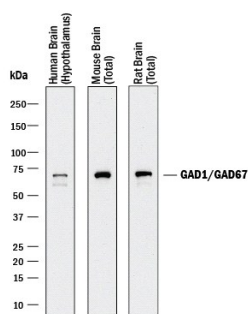
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	1 µg/mL	See Below

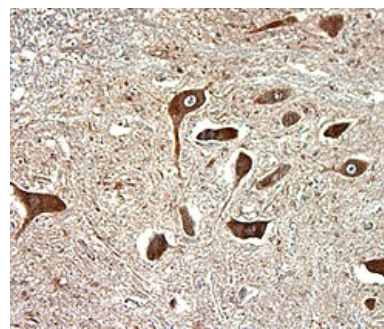
DATA

Western Blot



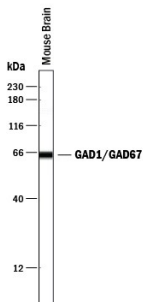
Detection of Human, Mouse, and Rat GAD1/GAD67 by Western Blot. Western blot shows lysates of human brain (hypothalamus) tissue, mouse brain (total) tissue, and rat brain (total) tissue. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human/Mouse/Rat GAD1/GAD67 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2086) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for GAD1/GAD67 at approximately 67 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



GAD1/GAD67 in Human Spinal Cord. GAD1/GAD67 was detected in immersion fixed paraffin-embedded sections of human spinal cord using 15 µg/mL Goat Anti-Human/Mouse/Rat GAD1/GAD67 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2086) overnight at 4 °C. Tissue was stained with the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

Simple Western



Detection of Mouse GAD1/GAD67 by Simple Western™. Simple Western lane view shows lysates of mouse brain tissue, loaded at 0.2 mg/mL. A specific band was detected for GAD1/GAD67 at approximately 65 kDa (as indicated) using 1 µg/mL of Goat Anti-Human/Mouse/Rat GAD1/GAD67 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2086) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

GAD1, also named 67 kDa or brain GAD, is an enzyme that catalyzes the formation of the inhibitory neurotransmitter γ -amino butyric acid (GABA) from glutamate. GAD1 is also expressed in multiple non-neuronal tissues during development.