

GAD2 Antibody

✓ 100 µl
(10 western blots)

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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #2572
Swiss-Prot Acc. #Q05329

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IF-F Endogenous	M, R, (H)	60 kDa	Rabbit**

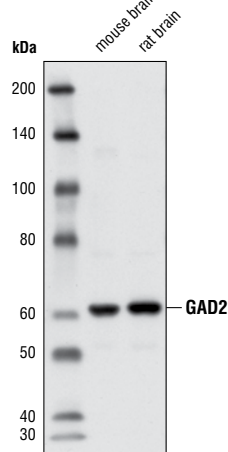
Background: The enzyme glutamate decarboxylase (GAD) is responsible for the synthesis of the essential neurotransmitter gamma-aminobutyric acid (GABA) from L-glutamic acid (1). GAD1 (GAD67) and GAD2 (GAD65) are expressed in nervous and endocrine systems (2) and are thought to be involved in synaptic transmission (3) and insulin secretion (4), respectively. Autoantibodies against GAD2 may serve as markers for type I diabetes (5). Many individuals suffering from an adult onset disorder known as Stiff Person Syndrome (SPS) also express autoantibodies to GAD2 (6).

Specificity/Sensitivity: GAD2 Antibody detects endogenous levels of total GAD2 protein.

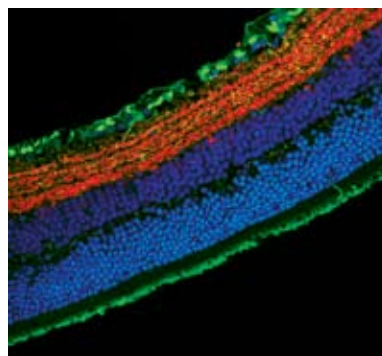
Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide surrounding Ala150 of human GAD2. Antibodies are purified by peptide affinity chromatography.

Background References:

- (1) Kaufman, D.L. et al. (1991) *J Neurochem* 56, 720–3.
- (2) Feldblum, S. et al. (1993) *J Neurosci Res* 34, 689–706.
- (3) Gao, B. and Moore, R.Y. (1996) *J Biol Rhythms* 11, 172–9.
- (4) Rubi, B. et al. (2001) *J Biol Chem* 276, 36391–6.
- (5) Gilliam, L.K. et al. (2004) *Clin Exp Immunol* 138, 337–41.
- (6) Skorstad, G. et al. (2008) *Eur J Neurol* 15, 973–80.



Western blot analysis of extracts from mouse and rat brain using GAD2 Antibody.



Confocal immunofluorescent analysis of mouse retina using GAD2 Antibody (Red) and β 3-Tubulin (TU-20) Mouse mAb #4466 (green). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000
Immunofluorescence (IF-F) 1:100

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.

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