

GAD2 Antibody

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	M R	Endogenous	60	Rabbit	#Q05329	2572

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

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.

Specificity/Sensitivity

GAD2 Antibody detects endogenous levels of total GAD2 protein.

Species predicted to react based on 100% sequence homology

Human

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

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).

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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting

Cross-Reactivity Key

M: Mouse **R:** Rat

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