

#5843 Store at -20C

GAD2 (D5G2) XP® Rabbit mAb


Cell Signaling
TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP, IF-F	H M R	Endogenous	60	Rabbit IgG	#Q05329	2572

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Frozen)

Dilution

1:1000
1:50
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #81505.

Specificity / Sensitivity

GAD2 (D5G2) XP® Rabbit mAb recognizes endogenous levels of total GAD2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human GAD2 protein.

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

WB: Western Blotting **IP:** Immunoprecipitation **IF-F:** Immunofluorescence (Frozen)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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