

GAP43 Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R	Endogenous	38, 43	Rabbit	#P17677	2596

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

GAP43 Antibody detects endogenous levels of total GAP protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human GAP43 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

GAP43 is a nervous system specific, growth-associated protein enriched in growth cones and areas of high plasticity (1). Phosphorylation of GAP43 at Ser41 by PKC is regulated by intracellular Ca²⁺ and affects the ability of GAP43 to bind calmodulin (2,3). GAP43 is integral to growth cone formation, neurite outgrowth, and the development of a functional cerebral cortex (4,5). Aberrant GAP43 expression can be seen in patients diagnosed with schizophrenia and Alzheimer's Disease (6,7).

Background References

1. Biewenga, J.E. et al. (1996) *Acta Biochim Pol* 43, 327-38.
2. Dekker, L.V. and Parker, P.J. (1997) *J Biol Chem* 272, 12747-53.
3. Chapman, E.R. et al. (1991) *J Biol Chem* 266, 207-13.
4. Aigner, L. and Caroni, P. (1993) *J Cell Biol* 123, 417-29.
5. Shen, Y. et al. (2008) *Cerebellum* 7, 451-66.
6. Sower, A.C. et al. (1995) *Mol Chem Neuropathol* 24, 1-11.
7. de la Monte, S.M. et al. (1995) *Am J Pathol* 147, 934-46.

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

H: Human **M:** Mouse **R:** Rat

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