

#8945 Store at -20C

GAP43 (D9C8) Rabbit mAb


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

Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Frozen)

Dilution

1:1000
1:50
1:200 - 1:400

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 #42786.

Specificity / Sensitivity

GAP43 (D9C8) Rabbit mAb recognizes endogenous levels of total GAP43 protein. Low levels of non-specific nuclear labeling may be observed by immunocytochemistry (ICC).

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys30 of human GAP43 protein.

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

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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