



PhosphoSolutions®
Antibodies that work™

Colorado Biosciences Park
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Anti-Calcitonin Gene Related Peptide (CGRP)

Catalog Number: 311-CGRP

Size: 100 µl

Isotype: IgG_{2a}

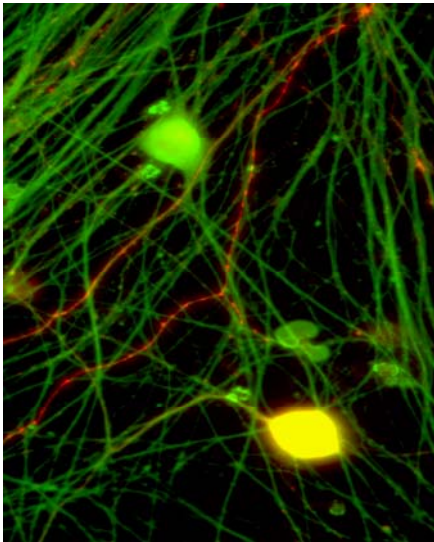
Product Description: Mouse monoclonal antibody

Applications: **WB:** not recommended **ICC:** 1:50-1:100

Antigen: Rat alpha-CGRP

Species reactivity: The antibody has been directly tested for reactivity in rat and human. Other species have not yet been tested. It is expected that the antibody will react with most mammals.

Biological Significance: Calcitonin Gene Related Peptide [CGRP] is a 37 amino acid peptide and is the most potent endogenous vasodilator currently known (Brain et al., 1985). CGRP is primarily produced in nervous tissue, however, its receptors are expressed throughout the body. CGRP is also strongly implicated in the vasodilatory effect of endogenous cannabinoid anandamide in the brain. This effect was found to be antagonized by capsazepine. CGRP is also currently a major target of research in regards to factors effecting the onset of migraine headaches (Edvinsson L., 2003). CGRP antibodies have been used successfully in immunoneutralization (Wong et al., 1993)



Immunostaining of CGRP (red) in cryopreserved DRG neurons grown on coverslips. 40xmag. Green staining is PGP9.5. Yellow staining is the colocalization of CGRP and PGP9.5. Cells were obtained photo was provided courtesy of QBMCellScience.

Purification Method: Protein G purified

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WB = Western Blot **ICC** = Immunocytochemistry **IHC** = Immunohistochemistry

Packaging: 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol. Adequate amount of material to conduct 10-mini Western blots.

Storage and Stability: Store at -20°C in undiluted aliquots; stable for at least one year after date of receipt. Avoid freeze/thaw cycles.

Shipment: Domestic - Blue Ice; International - Blue Ice or Dry Ice.

This product is for research use only.

Antibody Specificity: Specific for Calcitonin Gene Related Peptide. Also recognizes rat beta-CGRP and human alpha-CGRP (10-fold less sensitivity compared to rat alpha-CGRP). Suggested positive controls are dorsal root ganglia, pancreas and gut.

Notes: This antibody is an excellent tool for immunohistochemistry and for multiple labeling immunofluorescence of peripheral tissue like stomach, intestine, pancreas, sensory ganglia, and all the regions of the body that are innervated by primary afferent neurons as well as central nervous tissue.

Quality Control Tests: ICC performed on each lot.

References:

Brain SD, Williams TJ, Tippins JR, Morris HR, MacIntyre I (1985) Calcitonin gene related peptide is a potent vasodilator. *Nature* 313 (5997): 54-6

Edvinsson L (2003) New therapeutic target in primary headaches—blocking the CGRP receptor. *Expert Opin Ther Targets*.7(3):377-83

Wong HC, Tache' Y, Lloud KCK, Yang H, Sternini C, Holzer P, Walsh JH (1993) Monoclonal antibody to rat alpha-CGRP: production, characterization, and in vivo immunoneutralization activity. *Hybridoma*. 12:93-106.

WB = Western Blot **IF** = Immunofluorescence **IHC** = Immunohistochemistry **IP** = Immunoprecipitation

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