

# PRODUCT INFORMATION



## CGRP Monoclonal Antibody (Clone 4901)

Item No. 29254

### Overview and Properties

<b>Contents:</b>	This vial contains 100 µl of protein G-purified mouse monoclonal antibody.
<b>Synonym:</b>	Calcitonin Gene-Related Peptide
<b>Immunogen:</b>	Rat α-CGRP
<b>Species Reactivity:</b>	(+) Rat α-CGRP, Rat β-CGRP, Human α-CGRP
<b>Form:</b>	Liquid
<b>Storage:</b>	-20°C (as supplied)
<b>Stability:</b>	≥1 year
<b>Storage Buffer:</b>	10 mM HEPES, pH 7.5, with 150 mM sodium chloride, 100 µg/ml BSA, and 50% glycerol
<b>Clone:</b>	4901
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG2a
<b>Applications:</b>	Immunocytochemistry (ICC); the recommended starting dilution for ICC is 1:50-1:500. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

### Description

Calcitonin gene-related peptide (CGRP) is a 37-amino acid neuropeptide.<sup>1</sup> It exists in two major forms that share greater than 90% sequence homology, α-CGRP that is produced by alternative RNA splicing of the calcitonin gene *CALC1* and β-CGRP that is encoded by *CALCII* in humans. CGRP is primarily expressed in A and Cδ fibers and exhibits perivascular localization but is also expressed in keratinocytes and endothelial progenitor cells.<sup>1,2</sup> CGRP binds to a heteromeric complex of calcitonin receptor-like receptor (CRLR) and receptor activity-modifying protein 1 (RAMP1) and has roles in efferent function, nociception, and vasodilation. Levels of CGRP are increased in various pain states, including migraine. It also suppresses TNF-α, increases fibroblast motility and extracellular matrix synthesis, and induces Schwann cell proliferation to facilitate peripheral nerve regeneration following injury.<sup>3</sup> Cayman's CGRP Monoclonal Antibody (Clone 4901) can be used for ICC applications.

### References

1. Russell, F.A., King, R., Smillie, S.-J., *et al.* Calcitonin gene-related peptide: Physiology and pathophysiology. *Physiol. Rev.* **94**(4), 1099-1142 (2014).
2. Iyengar, S., Ossipov, M.H., and Johnson, K.W. The role of calcitonin gene-related peptide in peripheral and central pain mechanisms including migraine. *Pain* **158**(4), 543-559 (2017).
3. Chung, A.M. Calcitonin gene-related peptide (CGRP): Role in peripheral nerve regeneration. *Rev. Neurosci.* **29**(4), 369-376 (2018).

WARNING  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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