

Datasheet: 1720-9007

Description:	GOAT ANTI RAT CALCITONIN GENE-RELATED PEPTIDE
Specificity:	CGRP
Format:	Purified
Product Type:	Polyclonal Antibody
Isotype:	Polyclonal IgG
Quantity:	0.1 ml

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen	▪			
Immunohistology - Paraffin	▪			
Immunohistology - Resin		▪		
ELISA	▪			1/500 - 1/2500
Western Blotting			▪	
Immunofluorescence	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using the appropriate negative/positive controls.

Target Species	Rat
Species Cross Reactivity	Reacts with: Mouse, Guinea Pig, Emu N.B. Antibody reactivity and working conditions may vary between species.
Product Form	Purified Ig - liquid
Preparation	Purified Ig prepared by affinity chromatography on Protein G
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃)
Approx. Protein Concentrations	IgG concentration 5.0 mg/ml
Immunogen	Synthetic rat Tyr-CGRP (23-37) conjugated to gamma globulin.
External Database Links	UniProt:

Entrez Gene:

[24241](#) Calca [Related reagents](#)

Synonyms

Calc

Specificity

Goat anti Rat Calcitonin Gene-Related Peptide antibody recognizes Calcitonin gene-related peptide, also known as CGRP, a neuropeptide that acts as a vasodilator and plays a role in the pathophysiology of migraine ([Recober & Russo 2009](#)). Goat anti Rat Calcitonin Gene-Related Peptide antibody reacts with both the whole molecule (amino acids 1-37) and the C-terminal fragment (23-37).

References

1. Collins, J.J. *et al.* (2000) Distribution and origin of secretoneurin-immunoreactive nerves in the female rat uterus. [Neuroscience. 95 \(1\): 255-64.](#)
2. Pritz, M.B. & Stritzel, M.E. (1988) Thalamic nuclei that project to reptilian telencephalon lack GABA and GAD immunoreactive neurons and puncta. [Brain Res. 457 \(1\): 154-9.](#)
3. Pritz, M.B. & Stritzel, M.E. (1989) Reptilian dorsal column nucleus lacks GAD immunoreactive neurons. [Brain Res. 503 \(1\): 175-9.](#)
4. Fan, W. *et al.* (2010) Structural and cellular features in metaphyseal and diaphyseal periosteum of osteoporotic rats. [J Mol Histol. 41: 51-60.](#)
5. Hamed, K. *et al.* (2011) Changes in cutaneous innervation in patients with chronic pain after burns. [Burns. 37: 631-7](#)
6. Brock, J.A. *et al.* (2007) Postnatal androgen deprivation dissociates the development of smooth muscle innervation from functional neurotransmission in mouse vas deferens. [J Physiol. 581: 665-78.](#)
7. Gnanamanickam, G.J. and Llewellyn-Smith, I.J. (2011) Innervation of the rat uterus at estrus: a study in full-thickness, immunoperoxidase-stained whole-mount preparations. [J Comp Neurol. 519: 621-43.](#)
8. Marchant, N.J. *et al.* (2007) Coexpression of prodynorphin and corticotrophin-releasing hormone in the rat central amygdala: evidence of two distinct endogenous opioid systems in the lateral division. [J Comp Neurol. 504: 702-15.](#)
9. Golden, J.P. *et al.* (2010) RET signaling is required for survival and normal function of nonpeptidergic nociceptors. [J Neurosci. 30: 3983-94.](#)
10. Ikeda, E. *et al.* (2009) Fully functional bioengineered tooth replacement as an organ replacement therapy. [Proc Natl Acad Sci U S A. 106: 13475-80.](#)
11. Iliff, J.J. *et al.* (2010) Epoxyeicosatrienoic acids are endogenous regulators of vasoactive neuropeptide release from trigeminal ganglion neurons. [J Neurochem. 115: 1530-42.](#)
12. Iliff, J.J. *et al.* (2009) Epoxyeicosanoids as mediators of neurogenic vasodilation in cerebral vessels. [Am J Physiol Heart Circ Physiol. 296: H1352-63.](#)
13. Tague, S.E. and Smith, P.G. (2011) Vitamin D receptor and enzyme expression in dorsal root ganglia of adult female rats: modulation by ovarian hormones. [J Chem Neuroanat. 41: 1-12.](#)
14. Zou, M. *et al.* (2012) Brn3a/Pou4f1 regulates dorsal root ganglion sensory neuron specification and axonal projection into the spinal cord. [Dev Biol. 364: 114-27.](#)
15. Chucair-Elliott, A.J. *et al.* (2015) Degeneration and regeneration of corneal nerves in response to HSV-1 infection. [Invest Ophthalmol Vis Sci. 56 \(2\): 1097-107.](#)
16. Yu, W.M. *et al.* (2009) Disruption of laminin in the peripheral nervous system impedes nonmyelinating Schwann cell development and impairs nociceptive sensory function. [Glia. 57: 850-9.](#)
17. Zimmerman, A.L. *et al.* (2012) Monoaminergic Modulation of Spinal Viscero-Sympathetic Function in the Neonatal Mouse Thoracic Spinal Cord [PLoS One. 7: e47213.](#)
18. Drummond, E.S. *et al.* (2014) Increased expression of cutaneous $\alpha 1$ -adrenoceptors after

- chronic constriction injury in rats. [J Pain. 15 \(2\): 188-96.](#)
19. Li, Z. *et al.* (2014) Activation of MrgC receptor inhibits N-type calcium channels in small-diameter primary sensory neurons in mice. [Pain. 155 \(8\): 1613-21.](#)
 20. Drummond, P.D. *et al.* (2014) Upregulation of α 1-adrenoceptors on cutaneous nerve fibres after partial sciatic nerve ligation and in complex regional pain syndrome type II. [Pain. 155: 606-16.](#)
 21. Marvaldi L *et al.* (2015) Enhanced axon outgrowth and improved long-distance axon regeneration in sprouty2 deficient mice. [Dev Neurobiol. 75 \(3\): 217-31.](#)
 22. Pitzer, C. *et al.* (2008) Granulocyte-colony stimulating factor improves outcome in a mouse model of amyotrophic lateral sclerosis. [Brain. 131: 3335-47.](#)
 23. Chucair-Elliott, A.J. *et al.* (2015) Degeneration and regeneration of corneal nerves in response to HSV-1 infection. [Invest Ophthalmol Vis Sci. 56 \(2\): 1097-107.](#)
 24. Weir, K.A. and Lunam, C.A. (2006) Immunohistochemical study of cutaneous nerves in the emu. [Cell Tissue Res. 326: 697-705.](#)
 25. Valtcheva, M.V. *et al.* (2015) Enhanced nonpeptidergic intraepidermal fiber density and an expanded subset of chloroquine-responsive trigeminal neurons in a mouse model of dry skin itch. [J Pain. 16 \(4\): 346-56.](#)
 26. Payne, S.C. *et al.* (2015) Regeneration of sensory but not motor axons following visceral nerve injury. [Exp Neurol. 266: 127-42.](#)
 27. Van Steenwinckel, J. *et al.* (2015) Stromal cell-derived CCL2 drives neuropathic pain states through myeloid cell infiltration in injured nerve. [Brain Behav Immun. 45: 198-210.](#)
 28. Wong, A.W. *et al.* (2015) Neurite outgrowth in normal and injured primary sensory neurons reveals different regulation by nerve growth factor (NGF) and artemin. [Mol Cell Neurosci. 65: 125-34.](#)
 29. Watanabe, M. *et al.* (2015) Expression and Regulation of Cav3.2 T-Type Calcium Channels during Inflammatory Hyperalgesia in Mouse Dorsal Root Ganglion Neurons. [PLoS One. 10 \(5\): e0127572.](#)
 30. O'Brien, D.E. *et al.* (2015) ERK2 Alone Drives Inflammatory Pain But Cooperates with ERK1 in Sensory Neuron Survival. [J Neurosci. 35 \(25\): 9491-507.](#)
 31. Sheahan, T.D. *et al.* (2015) Voluntary Exercise Training: Analysis of Mice in Uninjured, Inflammatory, and Nerve-Injured Pain States. [PLoS One. 10 \(7\): e0133191.](#)
 32. Park, S.I. *et al.* (2015) Soft, stretchable, fully implantable miniaturized optoelectronic systems for wireless optogenetics. [Nat Biotechnol. 33 \(12\): 1280-1286.](#)
 33. Vogelaar CF *et al.* (2015) Pharmacological Suppression of CNS Scarring by Deferoxamine Reduces Lesion Volume and Increases Regeneration in an *In Vitro* Model for Astroglial-Fibrotic Scarring and in Rat Spinal Cord Injury *In Vivo*. [PLoS One. 10 \(7\): e0134371.](#)
 34. Chetty, R. *et al.* (2006) Pancreatic endocrine tumour with ductules: further observations of an unusual histological subtype. [Pathology. 38 \(1\): 5-9.](#)
 35. Huang, A.Y. & Wu, S.Y. (2015) Calcitonin Gene-Related Peptide Reduces Taste-Evoked ATP Secretion from Mouse Taste Buds. [J Neurosci. 35 \(37\): 12714-24.](#)
 36. Lin, S.H. *et al.* (2016) Evidence for the involvement of ASIC3 in sensory mechanotransduction in proprioceptors. [Nat Commun. 7: 11460.](#)
 37. Kim, Y.S. *et al.* (2016) Coupled Activation of Primary Sensory Neurons Contributes to Chronic Pain. [Neuron. 91 \(5\): 1085-96.](#)

Storage

Store at +4°C or at -20°C if preferred.
 Storage in frost-free freezers is not recommended.
 This product should be stored undiluted.
 Avoid repeated freezing and thawing as this may denature the antibody.
 Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Health And Safety

Material Safety Datasheet documentation #10040 available at:

Information 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Goat IgG (Fc) (STAR122...) [FITC](#), [HRP](#)

Recommended Useful Reagents

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025A\)](#)

[ANTIGEN RETRIEVAL BUFFER, pH8.0 \(BUF025C\)](#)

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