Datasheet: 1720-9007 BATCH NUMBER 152223

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 informatic 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 <u>www.bio-</u>						
	rad-antibodies.com/proto	<u>cois</u> . Yes	No	Not Determined	Suggested Dilution		
	Immunohistology - Frozen	163		Not Determined	ouggested Dilution		
	Immunohistology - Paraffin	•					
	Immunohistology - Resin		•				
	ELISA				1/500 - 1/2500		
	Western Blotting			•			
	Immunofluorescence	-					
	Where this product has n	Where this product has not been tested for use in a particular technique this does not					
Target Species	necessarily exclude its us a guide only. It is recomn system using the approp Rat	nended th	nat the use	er titrates the product f	• •		
Species Cross Reactivity	Reacts with: Mouse, Guin N.B. Antibody reactivity a reactivity is derived from personal communications further information.	and worki testing w	ng conditi ithin our la	aboratories, peer-revie	wed publications or		
Product Form	Purified Ig - liquid						
Preparation	Purified Ig prepared by a	ffinity chr	omatogra	ohy on Protein G			
Buffer Solution	Phosphate buffered salin	е					

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: <u>P01256</u> <u>Related reagents</u>				
	Entrez Gene: 24241 Calca <u>Related reagents</u>				
Synonyms					
RRID	AB_2290729				
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 in the pathophysiology of migraine (<u>Recober & Russo 2009</u>). 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	 Collins, J.J. <i>et al.</i> (2000) Distribution and origin of secretoneurin-immunoreactive nerves in the female rat uterus. <u>Neuroscience. 95 (1): 255-64.</u> Pritz, M.B. & Stritzel, M.E. (1988) Thalamic nuclei that project to reptilian telencephalor lack GABA and GAD immunoreactive neurons and puncta. <u>Brain Res. 457 (1): 154-9.</u> Pritz, M.B. & Stritzel, M.E. (1989) Reptilian dorsal column nucleus lacks GAD immunoreactive neurons. <u>Brain Res. 503 (1): 175-9.</u> Fan, W. <i>et al.</i> (2010) Structural and cellular features in metaphyseal and diaphyseal periosteum of osteoporotic rats. <u>J Mol Histol. 41: 51-60.</u> Hamed, K. <i>et al.</i> (2011) Changes in cutaneous innervation in patients with chronic pain after burns. <u>Burns. 37: 631-7</u> Brock, J.A. <i>et al.</i> (2007) Postnatal androgen deprivation dissociates the development of smooth muscle innervation from functional neurotransmission in mouse vas deferens. <u>J Physiol. 581: 665-78.</u> 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. <u>J Comp Neurol. 519: 621-43.</u> Marchant, N.J. <i>et al.</i> (2007) Coexpression of prodynorphin and corticotrophin-releasing hormone in the rat central amygdala: evidence of two distinct endogenous opioid systems in the lateral division. <u>J Comp Neurol. 504: 702-15.</u> Golden, J.P. <i>et al.</i> (2009) Fully functional bioengineered tooth replacement as an organ replacement therapy. <u>Proc Natl Acad Sci U S A. 106: 13475-80.</u> Illif, J.J. <i>et al.</i> (2010) Epoxyeicosatrienoic acids are endogenous regulators of 				

vasoactive neuropeptide release from trigeminal ganglion neurons. <u>J Neurochem. 115:</u> 1530-42.

12. Iliff, J.J. *et al.* (2009) Epoxyeicosanoids as mediators of neurogenic vasodilation in cerebral vessels. <u>Am J Physiol Heart Circ Physiol. 296: H1352-63.</u>

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. <u>J Chem</u> <u>Neuroanat. 41: 1-12.</u>

14. Zou, M. *et al.* (2012) Brn3a/Pou4f1 regulates dorsal root ganglion sensory neuron specification and axonal projection into the spinal cord. <u>Dev Biol. 364: 114-27.</u>

15. Chucair-Elliott, A.J. *et al.* (2015) Degeneration and regeneration of corneal nerves in response to HSV-1 infection. <u>Invest Ophthalmol Vis Sci. 56 (2): 1097-107.</u>

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. <u>Glia.</u> <u>57: 850-9.</u>

17. Zimmerman, A.L. et al. (2012) Monoaminergic Modulation of Spinal Viscero-

Sympathetic Function in the Neonatal Mouse Thoracic Spinal Cord <u>PLoS One. 7: e47213.</u> 18. Drummond, E.S. *et al.* (2014) Increased expression of cutaneous α1-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. <u>Pain. 155 (8): 1613-21.</u>

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. <u>Dev Neurobiol. 75 (3): 217-31.</u>

22. Pitzer, C. *et al.* (2008) Granulocyte-colony stimulating factor improves outcome in a mouse model of amyotrophic lateral sclerosis. <u>Brain. 131: 3335-47.</u>

23. Chucair-Elliott, A.J. *et al.* (2015) Degeneration and regeneration of corneal nerves in response to HSV-1 infection. <u>Invest Ophthalmol Vis Sci. 56 (2): 1097-107.</u>

24. Weir, K.A. and Lunam, C.A. (2006) Immunohistochemical study of cutaneous nerves in the emu. <u>Cell Tissue Res. 326: 697-705.</u>

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. <u>Exp Neurol. 266: 127-42.</u>

27. Van Steenwinckel, J. *et al.* (2015) Stromal cell-derived CCL2 drives neuropathic pain states through myeloid cell infiltration in injured nerve. <u>Brain Behav Immun. 45: 198-210.</u>
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. <u>Mol Cell Neurosci. 65: 125-34.</u>

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. <u>PLoS One. 10 (5): e0127572.</u>

30. O'Brien, D.E. *et al.* (2015) ERK2 Alone Drives Inflammatory Pain But Cooperates with ERK1 in Sensory Neuron Survival. <u>J Neurosci. 35 (25): 9491-507.</u>

31. Sheahan, T.D. et al. (2015) Voluntary Exercise Training: Analysis of Mice in Uninjured,

StorageStore 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.Guarantee12 months from date of despatchHealth And Safety InformationMaterial Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/1720-9007 10040RegulatoryFor research purposes only		 Inflammatory, and Nerve-Injured Pain States. <u>PLoS One. 10 (7): e0133191.</u> 32. Park, S.I. <i>et al.</i> (2015) Soft, stretchable, fully implantable miniaturized optoelectronic systems for wireless optogenetics. <u>Nat Biotechnol. 33 (12): 1280-1286.</u> 33. Vogelaar CF <i>et al.</i> (2015) Pharmacological Suppression of CNS Scarring by Deferoxamine Reduces Lesion Volume and Increases Regeneration in an <i>In Vitro</i> Model for Astroglial-Fibrotic Scarring and in Rat Spinal Cord Injury <i>In Vivo.</i> <u>PLoS One. 10 (7): e0134371.</u> 34. Chetty, R. <i>et al.</i> (2006) Pancreatic endocrine tumour with ductules: further observations of an unusual histological subtype. <u>Pathology. 38 (1): 5-9.</u> 35. Huang, A.Y. & Wu, S.Y. (2015) Calcitonin Gene-Related Peptide Reduces Taste-Evoked ATP Secretion from Mouse Taste Buds. <u>J Neurosci. 35 (37): 12714-24.</u> 36. Lin, S.H. <i>et al.</i> (2016) Evidence for the involvement of ASIC3 in sensory mechanotransduction in proprioceptors. <u>Nat Commun. 7: 11460.</u> 37. Kim, Y.S. <i>et al.</i> (2016) Coupled Activation of Primary Sensory Neurons Contributes to Chronic Pain. <u>Neuron. 91 (5): 1085-96.</u> 38. Takahashi, N. <i>et al.</i> (2018) Meonatal spinal injury induces <i>de novo</i> projections of primary afferents to the lumbosacral intermediolateral nucleus in rats. <u>IBRO Rep. 4: 1-6.</u> 40. Sun, Y. <i>et al.</i> (2020) Somatostatin neurons in the central amygdala mediate anxiety by disinhibition of the central sublenticular extended amygdala. <u>Mol Psychiatry. Oct 01 [Epub ahead of print].</u> 41. Rytel, L. & Calka, J. (2020) Aspirin Administration Affects Neurochemical Characterization of Substance P-Like Immunoreactive (SP-LI) Nodose Ganglia Neurons Supplying the Porcine Stomach. <u>Biomed Res Int. 2020: 1049179.</u>
Health And Safety Material Safety Datasheet documentation #10040 available at: Information https://www.bio-rad-antibodies.com/SDS/1720-9007 10040	Storage	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.
Information <u>https://www.bio-rad-antibodies.com/SDS/1720-9007</u> 10040	Guarantee	12 months from date of despatch
Regulatory For research purposes only		https://www.bio-rad-antibodies.com/SDS/1720-9007
	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)

North & South	h Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21	
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50	То
	Email: antibody_sales_us@bio-rad.com Email: antibody_sales_uk@bio-rad.com		o-rad.com	Email: antibody_sales_de@bio-rad.comd_a		
bate	h/lot specific datasheet f	or this product in	lease use our online sear	ch tool at: hio	rad-antibodies.com/datasheet	e .

batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M362924:200528'

Printed on 21 Mar 2025

© 2025 Bio-Rad Laboratories Inc | Legal | Imprint