SYSY Antibodies

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CGRP

Cat.No. 414 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For **reconstitution** add 100 µl H_2O, then aliquot and store at -20°C until use. Antibodies should be stored at +4°C when still lyophilized. Do not freeze! For detailed information, see back of the data sheet.
Applications	**ICC**: 1 : 500 **IHC**: 1 : 500 **IHC-P (FFPE)**: 1 : 1000 **iDISCO**: external data (see remarks) **Clarity**: external data (see remarks)
Immunogen	Synthetic peptide corresponding to the C-terminal half of the processed mouse α-CGRP neuropeptide (UniProt Id: Q99JA0)
Reactivity	Reacts with: mouse (Q99JA0), rat (P01256), human (P06881), monkey. Other species not tested yet.
Specificity	This antibody recognizes α-CGRP. It may crossreact with the unprocessed precursor protein and with β-CGRP due to sequence homology.
Remarks	**iDISCO**: This antibody has been successfully applied and published for this method by customers (see application-specific references). **Clarity**: This antibody has been successfully applied and published for this method by customers (see application-specific references).

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Background

Calcitonin **g**ene-**r**elated **p**eptide (**CGRP**) is a 37-amino acid peptide produced by alternative splicing of calcitonin gene transcripts. It is characterized by a six amino acid ring structure linked by a disulfide bridge and an amidated C-terminus.
CGRP is present in parafollicular cells (C-cells) of the thyroid and in central and peripheral nerves. It is a potent vasodilator and can function in the transmission of pain. It has a major role in migraine pathophysiology, and CGRP antibodies have been used successfully in immunoneutralization.

For more information on protein expression pattern, please refer to the overview image in our SYSY Antibodies ATLAS.

Selected References for 414 004

Impact of chronic social stress on molecular markers of skin regeneration during experimental excisional wounding.
Makyeyeva L, Belenichev I, Aliyeva O, Frolov O, Petakh P, Kamyshnyi O
Frontiers in immunology (2025) 16: 1656214. . **IHC-P; tested species: rat**

Prox2 and Runx3 vagal sensory neurons regulate esophageal motility.
Lowenstein ED, Ruffault PL, Misios A, Osman KL, Li H, Greenberg RS, Thompson R, Song K, Dietrich S, Li X, Vladimirov N, et al.
Neuron (2023) : . . **CLARITY; tested species: mouse**

Sensory innervation of masseter, temporal and lateral pterygoid muscles in common marmosets.
Hovhannisyan AH, Lindquist K, Belugin S, Mecklenburg J, Ibrahim T, Tram M, Corey T, Salmon A, Ruparel S, Ruparel S, Akopian A, et al.
bioRxiv : the preprint server for biology (2023) : . . **IHC; tested species: marmoset**

GIPR Agonism Inhibits PYY-Induced Nausea-Like Behavior.
Samms RJ, Cosgrove R, Snider BM, Furber EC, Droz BA, Briere DA, Dunbar J, Dogra M, Alsina-Fernandez J, Borner T, De Jonghe BC, et al.
Diabetes (2022) 717: 1410-1423. . **IDISCO; tested species: mouse**

Genetic targeting of myelinated primary afferent neurons using a new NefhCreERT2 knock-in mouse.
Chen JC, Kaczmarczyk L, de-Faria FM, Szczot M, Jackson WS, Larsson M
Scientific reports (2025) 151: 10890. . **IHC; tested species: mouse**

Investigating Mechanically Activated Currents from Trigeminal Neurons of Nonhuman Primates.
Lindquist KA, Mecklenburg JM, Hovhannisyan AH, Ruparel SB, , Akopian AN
eNeuro (2025) 125: . . **IHC; tested species: marmoset**

Lamellar Schwann cells in the Pacinian corpuscle potentiate vibration perception.
Chen YT, de Thomas Wagner D, Loutit AJ, Nourizonoz A, Ulanova M, Graikou D, Chang MS, Croisier-Coeytaux MC, Clerc-Rosset S, Blanc J, Knott G, et al.
Science advances (2025) 1124: eadt5110. . **IHC; tested species: mouse**

A NaV1.8FlpO mouse enabling selective intersectional targeting of low threshold C fiber mechanoreceptors and nociceptors.
Chen JCY, Kaczmarczyk L, Jackson WS, Larsson M
Frontiers in molecular neuroscience (2025) 18: 1574219. . **IHC; tested species: mouse**

Molecular and functional profiling of cell diversity and identity in the lateral superior olive, an auditory brainstem center with ascending and descending projections.
Maraslioglu-Sperber A, Pizzi E, Fisch JO, Kattler K, Ritter T, Friauf E
Frontiers in cellular neuroscience (2024) 18: 1354520. . **IHC; tested species: mouse**

Sensory innervation of masseter, temporal and lateral pterygoid muscles in common marmosets.
Hovhannisyan AH, Lindquist KA, Belugin S, Mecklenburg J, Ibrahim T, Tram M, Corey TM, Salmon AB, Perez D, Ruparel S, Akopian AN, et al.
Scientific reports (2023) 131: 23062. . **IHC; tested species: marmoset**

Access the online factsheet including applicable protocols at https://sysy.com/product/414004 or scan the QR-code.

FAQ - How should I store my antibody?

Shipping Conditions

- All SYSY antibodies and control proteins/peptides are shipped lyophilized (vacuum freeze-dried). In this form, they remain stable without loss of quality at ambient temperatures for several weeks.

Storage of Sealed Vials after Delivery

- **Unlabeled** and **biotin-labeled antibodies** and **control proteins** should be stored at **4°C** before reconstitution. **Do not freeze lyophilized antibodies**. Temperatures below 0°C may impair performance.
- **Fluorescence-labeled antibodies** should be reconstituted immediately upon receipt. Long-term storage of lyophilized fluorophore-conjugates may cause aggregation.
- **Control peptides** should be stored at -20°C before reconstitution.

Long Term Storage after Reconstitution (General Considerations)

- **Do not use frost-free ("no-frost") freezers.** These units periodically warm to remove ice buildup, causing freeze–thaw cycles that can damage antibodies.
- Store vials in areas with minimal temperature fluctuation - preferably toward the back of the freezer, not on the door.
- Aliquot reconstituted antibodies and store at –20°C to –80°C.
- Avoid very small aliquots (<20 µL), as evaporation and adsorption to tube surfaces can reduce antibody concentration and activity.
- Use the smallest practical storage vial to minimize surface area.
- Adding glycerol to a final concentration of 50% prevents freezing at -20°C, allowing storage in liquid form and effectively avoiding freeze–thaw cycles.

Product Specific Hints for Storage

Control proteins / peptides

- Store at -20°C to -80°C

Monoclonal Antibodies

- **Ascites and hybridoma supernatant:** Store at -20°C to -80°C
  Prolonged storage at 4°C is not recommended, as proteases present in ascites may degrade antibodies.
- **Purified IgG:** Store at -20°C to -80°C
  Adding a carrier protein (e.g., BSA) enhances long-term stability.
  Many SYSY antibodies already contain carrier proteins - refer to the respective datasheet for details.

Polyclonal Antibodies

- **Crude antisera:** Can be stored at 4°C with antimicrobials added, but -20°C to -80°C is preferred
- **Affinity-purified antibodies:** Less stable than antisera; store at -20°C to -80°C
  Adding a carrier protein such as BSA improves long-term stability.
  Most SYSY antibodies already contain carrier proteins - refer to the respective datasheet for details.

Fluorescence-labeled Antibodies

- Store as a liquid with 1:1 (v/v) glycerol at -20°C, and protect from light exposure

Avoid repeated freeze-thaw cycles for all antibodies!

FAQ - How should I reconstitute my antibody?

Reconstitution

- All purified SYSY antibodies are lyophilized from PBS. To reconstitute the antibody in PBS, add the volume of deionized water specified in the corresponding datasheet. If a larger final volume is desired, first add the recommended amount of water, then adjust with PBS and, if needed, add a stabilizing carrier protein (e.g., BSA) to a final concentration of 2%. Some SYSY antibodies already contain albumin; please take this into account before adding additional carrier protein.

For complete reconstitution, carefully remove the vial cap. After adding water, briefly vortex the solution. To collect the liquid at the bottom of the vial, place the vial inside a 50 ml centrifuge tube padded with paper and centrifuge briefly.

- If desired, small amounts of azide or thimerosal may be added to prevent microbial growth. This is particularly recommended when storing an aliquot at 4°C.
- After reconstitution of fluorescence-labeled antibodies, add glycerol 1:1 (v/v) to achieve a final concentration of 50%. This prevents freezing at –20°C and keeps the antibody in liquid form, effectively avoiding freeze–thaw cycles.
- Glycerol may also be added to unlabeled primary antibodies as a general measure to prevent freeze–thaw damage.
- For further guidance, please refer to our **storage tips** and recommendations for reconstituted antibodies, control peptides, and control proteins.