SYSY Antibodies

Rudolf-Wissell-Str. 28a
37079 Göttingen, Germany
Phone: +49 551-50556-0
Fax: +49 551-50556-384
E-mail: sales@sysy.com
Web: www.sysy.com

CRF

Cat.No. 529 004; 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	**WB**: not tested yet **IP**: not tested yet **ICC**: 1 : 500 **IHC**: 1 : 500 (see remarks) **IHC-P (FFPE)**: not tested yet
Immunogen	Synthetic peptide corresponding to the C-terminal part of the processed mouse CRF neuropeptide (UniProt Id: Q8CIT0)
Reactivity	Reacts with: mouse (Q8CIT0), rat (P01143). Other species not tested yet.
Remarks	**IHC**: Antigen retrieval with citrate buffer pH 6 is required.

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

Background

Corticotropin-releasing factor (**CRF**), also known as **corticotropin-releasing hormone** (**CRH**), is a 41-amino acid neuropeptide belonging to the corticotropin-releasing factor family. In mammals, CRF is predominantly expressed in the paraventricular nucleus of the hypothalamus, the central nucleus of the amygdala, the bed nucleus of stria terminalis (BNST), and some other brain regions (1-4).
CRF is a critical mediator of the endocrine stress response. Following stress exposure, CRF activates the hypothalamic-pituitary-adrenal (HPA) axis by stimulating the release of adrenocorticotropic hormone (ACTH) from the anterior pituitary, leading to glucocorticoid secretion from the adrenal cortex (5). Beyond its role in stress response, CRF is involved in different aspects of social behavior (4). CRF dysregulation is implicated in stress-related mood disorders such as anxiety, depression (6, 7), and Alcohol Use Disorder (AUD) (2).

Selected General References

Corticotropin-Releasing Factor Family: A Stress Hormone-Receptor System's Emerging Role in Mediating Sex-Specific Signaling.
Vuppaladhadiam L et al. Cells (2020) PubMed:32244319

The Role of Corticotropin-Releasing Factor (CRF) and CRF-Related Peptides in the Social Behavior of Rodents.
Bagosi Z et al. Biomedicines (2023) PubMed:37626714

Corticotropin-releasing factor system in the lateral septum: Implications in the pathophysiology of obesity.
Olivares-Barraza R et al. Front Mol Neurosci (2022) PubMed:36204135

Chronic stress-induced synaptic changes to corticotropin-releasing factor-signaling in the bed nucleus of the stria terminalis.
Maita I et al. Front Behav Neurosci (2022) PubMed:35983475

Corticotropin releasing factor and norepinephrine related circuitry changes in the bed nucleus of the stria terminalis in stress and alcohol and substance use disorders.
Snyder AE et al. Neuropharmacology (2021) PubMed:34624301

Corticotropin-Releasing Factor (CRF) circuit modulation of cognition and motivation.
Hupalo S et al. Neurosci Biobehav Rev (2019) PubMed:31212019

The Corticotropin-Releasing Factor Family: Physiology of the Stress Response.
Deussing JM et al. Physiol Rev (2018) PubMed:30109816

Access the online factsheet including applicable protocols at https://sysy.com/product/529004 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.