

FAAH1

Cat.No. 469 003; Polyclonal rabbit antibody, 100 µl specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl specific antibody, lyophilized. Affinity purified with the immunogen. Albumin and azide were added for stabilization. For reconstitution add 100 µl H ₂ O. Then aliquot and store at -20°C to -80°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: 1 : 1000 (AP staining) IP: not tested yet ICC: 1 : 500 IHC: 1 : 500 IHC-P (FFPE): 1 : 100
Immunogen	Rat FAAH 1 recombinant protein lacking the amino terminal transmembrane domain. (UniProt Id: O08914)
Reactivity	Reacts with: mouse (O08914), rat (P97612). Other species not tested yet.
Specificity	K.O. validated PubMed: 35986066

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

Background

N-acyl amino acids are a group of bioactive lipids with transmitter function (1) that consist of a fatty acid tail conjugated to an amino acid head group (amidated lipids or fatty acid amides). **Fatty-acid amide hydrolase 1** (FAAH 1) is an ER associated transmembrane protein (2) that catalyzes the hydrolysis and thereby inactivation of different endogenous amidated lipids to their corresponding fatty acids. Prominent examples are the appetite stimulating endocannabinoid anandamide (3) as well as oleamid, a fatty acid amide involved in sleep regulation (4). Intracellular, membrane located FAAH1 and the extracellular N-acyl amino acid synthase/hydrolase PM20D1 cooperate in the hydrolysis of amino acid-conjugated fatty acids and show overlapping but distinct substrate specificity (2).

Selected References for 469 003

Cannabinoid CB1 receptors regulate salivation.
Andreis K, Billingsley J, Naimi Shirazi K, Wager-Miller J, Johnson C, Bradshaw H, Straiker A
Scientific reports (2022) 121: 14182. . **IHC; KO verified; tested species: mouse**

Selected General References

Formate assay in body fluids: application in methanol poisoning.
Makar AB et al. Biochem Med (1975) PubMed:1.) 17015445

Delineation of the intimate details of the backbone conformation of pyridine nucleotide coenzymes in aqueous solution.
Bose KS et al. Biochem Biophys Res Commun (1975) PubMed:2.) 32271712

Metal substitutions incarbonic anhydrase: a halide ion probe study.
Smith RJ et al. Biochem Biophys Res Commun (1975) PubMed:3.) 11704633

Effect of chloroquine on cultured fibroblasts: release of lysosomal hydrolases and inhibition of their uptake.
Wiesmann UN et al. Biochem Biophys Res Commun (1975) PubMed:4.) 9122178

Access the online factsheet including applicable protocols at <https://sysy.com/product/469003> 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.