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

ALFA Selector ST

Cat.No. N1511; Single Domain camelid antibody, 2000 µl affinity resin

Data Sheet

Reconstitution/ Storage	2000 µL slurry For detailed information, see back of the data sheet.
Storage	Store at 4 °C, do not freeze
Applications	**IP**: yes
Immunogen	synthetic peptide SRLEEELRRRLTE (UniProt Id: not defined)
Formulation	50 % slurry in PBS containing 20 % Ethanol
Shelf life	Stable for 12 months

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

Background

NanoTag® selector resins are based on a high-affinity single-domain antibody (sdAb) that is covalently immobilized on 4 % cross-linked agarose beads. The innovative, oriented and selective attachment via a flexible linker guarantees a high accessibility of the sdAbs and largely eliminates batch-to-batch variations. Due to the single-chain nature of sdAbs and their stable and covalent attachment, no leakage of light and heavy chains is observed during elution with SDS sample buffer. Selector resins thus features high affinity and superior capacity, while showing negligible unspecific background. Selector resins are compatible not only with physiological buffers but also with high stringency buffers. Selector resins thus provide great freedom to adjust the binding and washing conditions to the experimental needs.

The **ALFA-tag** is a novel, rationally designed epitope tag (SRLEEELRRRLTE) that forms a small and stable α-helix that is functional irrespective of its position on the target protein in prokaryotic and eukaryotic hosts.

For a poster with detailed information on the ALFA System and its applications click here

[[ALFA_sequences.png]]
The flanking proline residues are not part of the recognition sequence, but may aid in spacial separation of the tag from the protein of interest.

For immunoprecipitations we offer two types of ALFA Selector resins. Both ALFA Selectors are based on covalently coupled nanobodies that specifically recognize ALFA-tagged targets. ALFA Selector ST (for Super-Tight) offers the highest possible affinity for ALFA-tagged targets, which can be eluted under acidic or denaturing conditions. ALFA Selector PE (for Peptide Elution) displays an engineered nanobody with lower affinity (Kd ~11 nM), which is optimized for peptide elution under physiological conditions. ALFA Selector CE (link) (for cold elutable) carries an engineered nanobody with lower affinity (Kd 100 nM), which is optimized for peptide elution under physiological conditions at low temperature (4°C). All Selector resins feature low non-specific protein adsorption and therefore allowing clean and meaningful immunoprecipitations. Due to the covalent and oriented immobilization, the immobilized nanobodies will stay on the resin even when using harsh denaturing and/or reducing conditions for elution. In contrast to conventional immunoprecipitations, eluates from both ALFA Selectors will therefore be free from large amounts of antibody fragments.

Selected References for N1511

The ALFA-tag is a highly versatile tool for nanobody-based bioscience applications.
Götzke H, Kilisch M, Martínez-Carranza M, Sograte-Idrissi S, Rajavel A, Schlichthaerle T, Engels N, Jungmann R, Stenmark P, Opazo F, Frey S, et al.
Nature communications (2019) 101: 4403. . **IP**

Proximity interactome mapping furthers a role for spinophilin in protein homeostasis.
Claeboe ET, Blake KL, Shah NR, Morris CW, Hens B, Atwood BK, Absalon S, Mosley AL, Doud EH, Baucum AJ
iScience (2025) 2811: 113735. . **IP; tested species: human**

Access the online factsheet including applicable protocols at https://sysy.com/product/N1511 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.