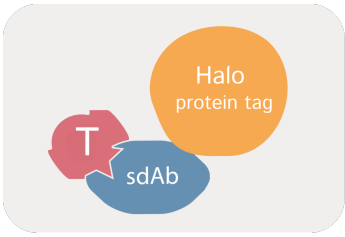
NanoTag Biotechnologies

Reconstitution and Storage

sdAb Halo fusions

sdAb Halo fusions are alpaca-derived single-domain antibodies (sdAbs) fused to a Halo protein tag sequence at the C-terminus. Halo refers to a modified bacterial enzyme, haloalkane dehalogenase, engineered to covalently bind synthetic ligands. These ligands can be conjugated to various functional groups such as fluorophores, biotin, or beads, enabling a wide range of biochemical, proteomic, and imaging applications. For instance, our sdAb Halo fusions are particulary useful in immunofluorescence for detailed protein visualization and manipulation.



Sketch of a sdAb Halo fusion in complex with its target protein.

T: target protein
sdAb: single-domain antibody

sdAb Halo fusions are **lyophilized from PBS pH 7.4 with 2% BSA (US-Origin)** and shipped as a powder at ambient temperature. The lyophilized reagent can be stored at 2-8°C for up to 12 months.

After reconstitution in 200 µL, the final concentration of sdAb Halo fusion is 0.25 mg/mL. For optimal performance, store the reconstituted reagent in aliquots at -80°C.

Protocol: Reconstitution of sdAb Halo fusions

1. Prepare sterile 50% glycerol (v/v) in deionized water.
   If applicable, we recommend including 0.1% sodium azide as a preservative. Sodium azide should be avoided when staining live cells or conducting *in vivo* studies.
2. Open the vial containing the lyophilized sdAb Halo fusion.
3. Add 200 µL of sterile 50% glycerol (v/v) in deionized water.
4. Mix gently and allow to sit at room temperature for ~5 min.
5. Optional: Briefly spin down the vial for 2 min at 100 x*g* using a 50 mL conical tube with tissue paper at the bottom.
6. Distribute into aliquots. Use small tubes and avoid aliquots below 20 µL.
7. Storage:
   - Short-term: Working aliquot can be stored at -20°C for up to 4 weeks.
   - Long-term: Ideally store at -80°C (up to 6 month).

Note:
- Avoid repeated freeze-thaw cycles.

Only for research applications, not for diagnostic or therapeutic use!

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