

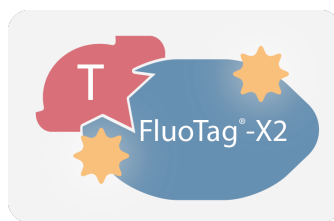
Primary FluoTag[®] Reagents

FluoTag[®] reagents are alpaca-derived single-domain antibodies (sdAbs) directly conjugated to a defined number of fluorophores at known positions. Depending on the specific target protein, they are available in up to three variants:

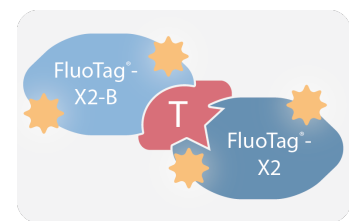
- **FluoTag[®]-Q:** A single sdAb conjugated to a single fluorophore, ideal for quantitative readout.
- **FluoTag[®]-X2:** A single sdAb conjugated to two fluorophores, our standard variant.
- **FluoTag[®]-X4:** A blend of two different FluoTags[®]-X2 that bind to a single target. FluoTag[®]-X4 reagents effectively label the target (T) with 4 fluorophores in total, resulting in brighter signals.



FluoTag[®]-Q



FluoTag[®]-X2



FluoTag[®]-X4

All Primary FluoTags[®] are **lyophilized from PBS pH 7.4 with 2% BSA (US-Origin)** and shipped as lyophilized powder at ambient temperature. The lyophilized reagent can be stored at 2-8°C for up to 12 months. Before usage, reconstitute and aliquot the reagent according to the detailed protocol below.

After reconstitution in 200 µL, the final concentration is as follows:

- FluoTag[®]-Q: 5 µM dye, 5 µM sdAb
- FluoTag[®]-X2: 5 µM dye, 2.5 µM sdAb
- FluoTag[®]-X4: 5 µM dye, 1.25 µM of each sdAb

Protocol: Reconstitution of Primary FluoTag[®] reagents

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 FluoTag[®] reagent.
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 xg 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 months).

- Notes:
- Avoid repeated freeze-thaw cycles.
 - Minimize exposure to light to prevent photobleaching of the dye.

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