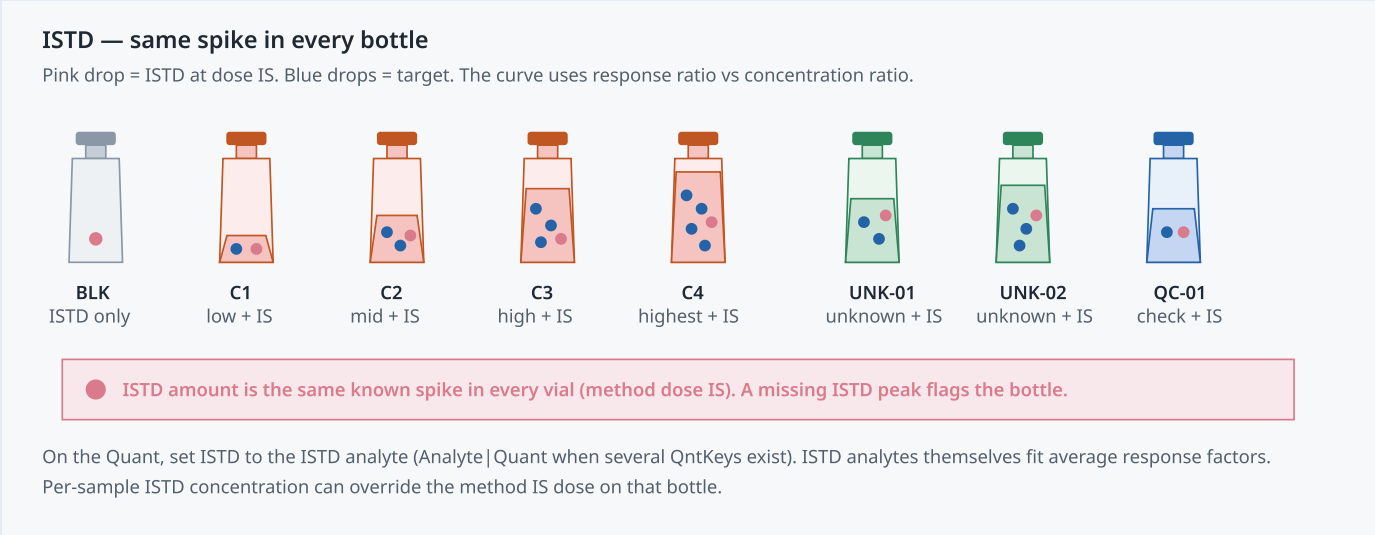
QUANTO USER GUIDE

ISTD initial calibration

Internal standard, ratios, dose IS.

Internal standard. Every bottle that you intend to quantitate carries the **same known ISTD spike**. The curve is built from **ratios**, so a weak injection moves both peaks together and still lands on the line.



Blank, multi-level cals, samples, and QC, each with a pink ISTD drop

When to use it

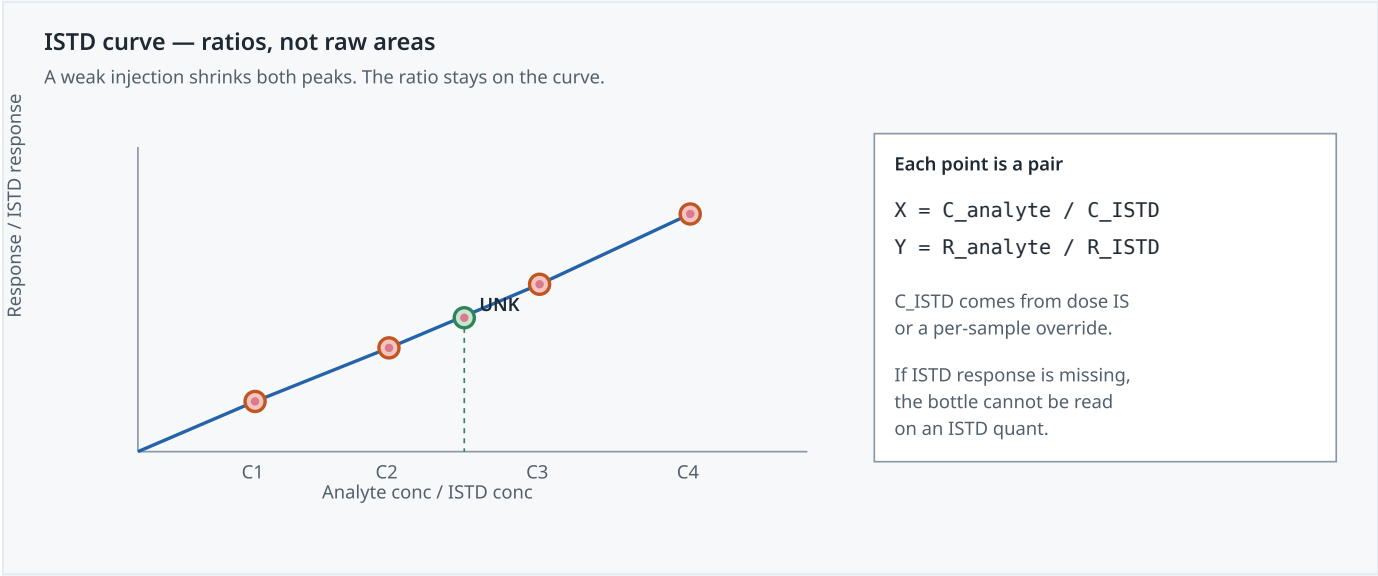
- Recovery, evaporation, or injection volume varies.
- You spike the same ISTD (or a labeled analog) into blanks, cals, QCs, and samples.
- You still want one global curve (**Initial calibration**).

Set it up

1. Create the **ISTD** analyte (type **ISTD**) and its Quant.
2. Create the target analyte (type **Target**). On its Quant, set **ISTD** to that ISTD Quant. When several QntKeys exist, the cell shows `Analyte|Quant`.
3. Keep the reserved dose name **IS**. Put the spike concentration on the ISTD analyte (and on the target if you override per bottle).
4. Create **C1…C5** (or your levels) for the **target** only. Those are the curve levels.
5. Spike ISTD into every bottle you will read. Mark cals with Dose **C1…C5**. The ISTD amount stays **IS**.
6. **Analyze**.

A blank in ISTD work usually still has the pink drop. It should show ISTD and no target. Target **Blank offset** uses that ISTD-normalized blank `y` as intercept `b` — see Blank offset. Blank concentration correction can still subtract the blank's on-curve concentration from NativeConc.

How the curve is read



Ratio curve: analyte over ISTD on both axes

Axis	Value
X	Target concentration ÷ ISTD concentration
Y	Target response ÷ ISTD response

Quanto resolves ISTD X and Y from the linked ISTD result in the same file (or the ISTD response stored on the calibration point). If ISTD response is missing or ≤ 0, that bottle cannot be read on this Quant.

ISTD analytes themselves are fitted as **average of response factors**. They are the denominator, not a second target curve.

Overrides

- **Compound ISTD concentration** on a sample overrides the method **IS** dose for that bottle.
- Dilution divides the on-column concentrations the same way as ESTD.
- Outlier **ISTD % deviation** on the analyte flags a bottle whose ISTD response wandered.

Mixing ESTD and ISTD

One method can have ESTD quants and ISTD quants. Key Review and reports still pick per analyte. A target without an ISTD link behaves as in ESTD.

Bracketing uses the same ratios; only the *set* of cal bottles changes. See Bracket calibration.

Response and recovery flags

After Analyze, check **MinRsp** / **MaxRsp** on the Quant if you set them, and **RecPct** / **RecFlag** on Calibration and QC bottles with a known dose. Details: Result limits & flags.