

NutriCulture Cell Viability Detection Kit-8 (CVDK-8)

Troubleshooting Guide

500 tests

Cat No: CVDK-8

Use this guide for common signal and plate-reading problems with NutriCulture CVDK-8. The one-bottle WST-8 assay produces a soluble orange formazan signal proportional to viable cell number. The datasheet protocol uses 2,000-5,000 cells in 100 uL medium, 10 uL CVDK-8 per well, a 1-4 hour incubation, and absorbance measurement at 450 nm.

Before You Start - Quick Checks

1. Store CVDK-8 at 4-8°C protected from light.
2. Seed 2,000-5,000 cells per well in 100 uL medium in a 96-well plate.
3. Add 10 uL CVDK-8 to each well.
4. Avoid introducing bubbles because they interfere with OD readings.
5. Incubate for 1-4 hours before reading.
6. Measure absorbance at 450 nm.

Problem	Most likely cause	Recommended action
OD signal is very low	Cell number may be below the protocol range or the reagent incubation may be too short.	Use the stated 2,000-5,000 cells per well and incubate with CVDK-8 for 1-4 hours before reading at 450 nm.
OD signal is excessively high	The assay may have been incubated beyond the stated range or cell number may not match the standard seeding setup.	Standardize seeding at 2,000-5,000 cells per well and use the 1-4 hour incubation window for comparison experiments.
Large well-to-well variability	Cell seeding, treatment time, reagent volume, or incubation time may vary between wells.	Use the same 100 uL culture volume, 10 uL CVDK-8 addition, and identical incubation interval for all comparison wells.
Unexpected OD spikes or unstable readings	Bubbles may be present in the well.	Avoid introducing bubbles when adding CVDK-8 because the datasheet states that bubbles interfere with OD measurement.
No orange color develops	The reagent may not have been added or viable-cell metabolism may be insufficient to generate the WST-8 formazan signal.	Confirm addition of 10 uL CVDK-8 and verify that the plate contains the intended viable-cell samples and controls.
Absorbance was measured at the wrong wavelength	The plate reader may not be set to the datasheet readout.	Measure at 450 nm.
Reagent performance is uncertain after storage	CVDK-8 may not have been kept under the specified condition.	Use reagent stored at 4-8°C with protection from light; the datasheet states stability for over one year under these conditions.
Samples must be read later rather than immediately	The assay may continue changing after the planned endpoint.	Add 10 uL of 1% w/v SDS or 0.1 M HCl per well, cover the plate, protect from light, and store at room temperature. The datasheet states no absorbance change should be observed for 24 hours.
Different treatment-duration experiments cannot be compared cleanly	The treatment interval may vary independently from the CVDK-8 reaction interval.	Keep the treatment duration appropriate to the experiment, then standardize the CVDK-8 incubation time across comparison wells.

Still having trouble? Recheck cell seeding, 10 uL reagent volume, absence of bubbles, the 1-4 hour reaction time, 450 nm readout, and 4-8°C light-protected storage. For delayed reading, use the datasheet stopping approach with SDS or HCl and protect the plate from light.