

Calcein AM Cell Viability Assay Kit

Quantify live cell numbers based on their endogenous esterase activity and plasma membrane integrity using green fluorescence. For microplate reader, microscopy, or flow cytometry.



Product Description

The Calcein AM Cell Viability Assay Kit is designed to quantify live cell numbers based on their endogenous esterase activity and plasma membrane integrity.

- Quantitate live cells using green fluorescence
- 30-min assay
- True endpoint viability assay; only live cells retain signal
- For fluorescence microplate reader, fluorescence microscopy, or flow cytometry
- Ex/Em 485/530 nm

Calcein AM is a widely used green fluorescent cell marker. Calcein AM is itself non-fluorescent and membrane-permeant, and thus can be introduced into cells via incubation. Once inside the cells, endogenous esterases hydrolyze the compound into the highly negatively charged green fluorescent dye calcein, which is retained in the cytoplasm in live cells. Only viable cells with intact plasma membranes retain fluorescence, making this a true end-point assay for cell viability. The fluorescent signal generated from the assay is proportional to the number of living cells in the sample. Calcein AM is also a useful tool for cell tracing.

We supply [Calcein AM](#) in a variety of packaging sizes and formats. See our full line of [Cell Viability & Apoptosis Assays](#).

References

1. Brain Res (2009) 1275, 87-95. [doi: 10.1016/j.brainres.2009.04.008](https://doi.org/10.1016/j.brainres.2009.04.008)
2. J Hepatol (2010) 52(5), 690-697. [doi: 10.1016/j.jhep.2009.12.025](https://doi.org/10.1016/j.jhep.2009.12.025)
3. PLoS ONE (2011) 6(6), e20301. [doi:10.1371/journal.pone.0020301](https://doi.org/10.1371/journal.pone.0020301)
4. PLoS ONE (2012) 7(4), e35007. [doi:10.1371/journal.pone.0035007](https://doi.org/10.1371/journal.pone.0035007)
5. Cancer Biol Ther (2013) 14(4),357-364. [DOI: 10.4161/cbt.23623](https://doi.org/10.4161/cbt.23623)
6. Toxics (2014) 2, 258-275. [doi:10.3390/toxics2020258](https://doi.org/10.3390/toxics2020258)
7. Cell Physiol Biochem (2015) 36, 384-394. [DOI: 10.1159/000430257](https://doi.org/10.1159/000430257)
8. RSC Adv (2015) 5, 47749-47756. <https://doi.org/10.1039/C5RA06861D>
9. Biomaterials (2018) 179, 60-70. [doi:10.1016/j.biomaterials.2018.06.027](https://doi.org/10.1016/j.biomaterials.2018.06.027)
10. Sci Rep (2018) 8, 766. <https://doi.org/10.1038/s41598-017-17539-z>
11. Mol Cancer Ther (2019) 18(6), 1092. [DOI: 10.1158/1535-7163.MCT-18-1313](https://doi.org/10.1158/1535-7163.MCT-18-1313)
12. Sci Rep (2019) 9, 2147. <https://doi.org/10.1038/s41598-019-38590-y>

This datasheet was generated on May 9, 2026 at 03:14:07 PM. Visit product page to check for updated information before use. Product link: <https://biotium-woo.supremeclients.com/product/calcein-am-cell-viability-assay-kit/>

Product attributes

Apoptosis/viability marker	Metabolic activity, Live cell stain
For live or fixed cells	For live/intact cells
Detection method/readout	Microplate reader (fluorescence), Fluorescence microscopy, Live cell imaging, Flow cytometry
Assay type/options	Endpoint assay, Short term staining (<24h)
Colors	Green
Excitation/Emission	485/530 nm (end product)
Storage Conditions	Store at -10 to -35 °C, Protect from light, Desiccate