

## CASY<sup>VIVO</sup> Cell Counter and Analyzer

# Precise T-Cell Proliferation Studies

Zani et. al. (The dietary sweetener sucralose is a negative modulator of T cell-mediated responses, Nature. 2023; 615(7953): 705–711.

### The Challenge:

To understand the immunomodulatory effects of sucralose, researchers needed highly accurate and reproducible daily T-cell counts to precisely determine its impact on cell proliferation. Subjective manual methods posed a risk to data quality.

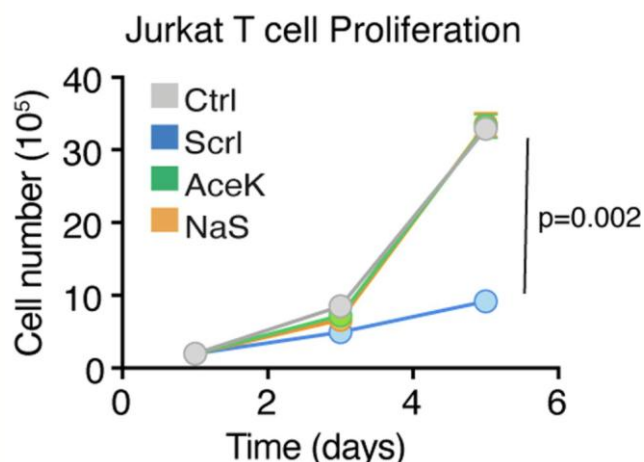
### CASY's Contribution:

The CASY Cell Counter and Analyzer provided objective, precise daily cell counts and size measurements based on electrical current exclusion. This enabled the generation of robust multi-day growth curves and demonstrated a statistically significant inhibition of T-cell proliferation by sucralose.

### Key Benefits to Researchers:

- **Quantitative Proliferation Data:** Obtain precise daily cell counts for accurate growth curves, enabling clear visualization of cellular responses.
- **Detect Subtle Effects:** The objective precision of CASY counts is sensitive enough to reveal statistically significant biological effects, even with subtle interventions.
- **Support for High-Impact Publications:** Generate high-quality, objective data that stands up to the rigorous scrutiny of top-tier scientific journals.
- **Reduced Variability:** Eliminate subjectivity and potential errors associated with traditional dye-based or manual counting methods

## CASY's Precision Enables Quantitative Tracking of Jurkat T-cell Proliferation, Revealing Sucralose's Inhibitory Effect.



Extended Data Fig 2c Sucralose limits T cell proliferation without affecting viability. **c)** Jurkat T cell proliferation in control media or media supplemented with the indicated sweeteners. N = 3.