

CASY^{VIVO} Cell Counter & Analyzer - Powering Breakthroughs in Cell Research

Ensuring Data Integrity: Precision in Drug Interaction Studies

Bajraktari-Sylejmani and Kamaraj (2025). The "specific" P-glycoprotein inhibitor zosuquidar also weakly inhibits human organic cation transporters; Archives of Pharmacology, 398:7147-7153. DOI: 10.1007/s00210-025-03714-y.

Cell Culture; HEK293; Cytotox	
Index	CC10
Standardization	X
Counting	X
Viability	X
Volume	X

The Challenge:

To obtain reliable data on drug-transporter interactions, researchers needed extremely precise cell counting and volume measurement to ensure sample consistency and minimize experimental variability in uptake inhibition assays.

CASY's Contribution:

The CASY Cell Counter was crucial for the accurate preparation of HEK293 cells, allowing for precise adjustment to a constant cell number (1×10^6 cells per replicate) and exact volume measurement. This meticulous preparation, facilitated by CASY, was fundamental to accurately quantify zosuquidar's inhibitory effects on OCT1, OCT2, and OCT3, enhancing data reliability and reproducibility.

Key Benefits to Researchers:

- Standardized Cell Numbers:** Achieve accurate and consistent cell numbers for every experimental replicate, critical for robust dose-response curves and comparisons.
- Exact Volume Measurement:** Ensure sample consistency with precise cell volume data, vital for accurate calculations in uptake inhibition assays.
- Enhanced Data Reliability:** Minimize experimental variability, leading to highly reliable and reproducible measurements of drug potencies.
- Robust Pharmacology Data:** Generate credible data for cellular drug transport and pharmacology research, bolstering confidence in your findings.

CASY's Precise Cell Preparation Enables Accurate Quantification of Zosuquidar's Inhibitory Effect on OCT Transporters.

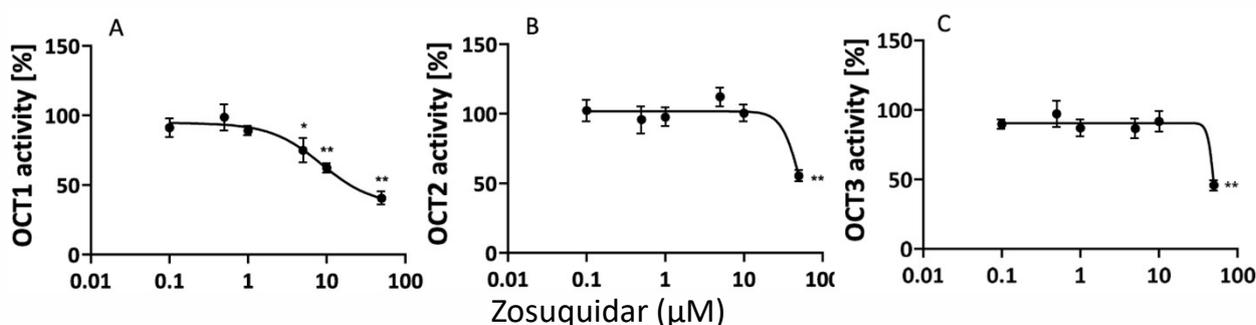


Fig. 1 Inhibition of metformin transport in OCT over-expressing cells by zosuquidar. A, B, C