

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

Biocompatibility of FAP-Targeting Nanoconjugates

Alsadig et al. (2025). Exploring Morphology of Thermoplasmonic Nanoparticles... *Small Science*, 5(2), 2500099. DOI: 10.1002/smssc.202500099.

Cell Culture; Fibroblast, Biocompatibility	
Index	CC6
Standardization	X
Counting	
Viability	X
Volume	

The Challenge:

Assessing potential cytotoxicity of gold nanoparticle (AuNP/AuNS) conjugates functionalized with immunotherapeutic target modules (TMs) on fibroblast activation protein (FAP)-expressing cells

CASY's Contribution:

CASY provided label-free viability measurements of human FAP (hFAP)-expressing cells after 24h incubation with various AuNP/AuNS conjugates (bare and TM-coated). The data confirmed high viability (>90%) across all treated groups, comparable to untreated controls.

Key Benefits to Researchers:

- **Accuracy:** Delivered precise, quantitative viability data, enabling reliable comparison between different nanoconjugate formulations and controls
- **Speed & Label-Free:** Provided rapid, automated viability assessment without requiring fluorescent dyes, avoiding potential interference or artifacts.
- **Validation:** Confirmed the low cytotoxicity profile of the nanoconjugates at the tested concentration, validating their suitability for further functional studies on cell targeting and photothermal therapy

Viability assessment of the cells following treatment with nanoconjugates (OD =0.1)

