CALUX®
Highlight

BioDetection Systems

3T3-L1 assay

The mouse 3T3-L1 assay is a cellular model to study fat cell differentiation. The impact of single chemicals or chemical mixtures can be determined through assessment the modulation of differentiation of preadipocytes into adipocytes. Trigliceride content can be used as a read-out. In addition, expression of marker genes can be used to specify the differentiation status of the cells.

Specification	3T3-L1 assay
Basal cell line	3T3-L1
Species	mouse
Tissue	fat
Positive control	various
Endpoint (pure compounds)	EC or PC concentration, lowest effect concentration (e.g. PC10)
Endpoint (mixtures)	Toxic equivalents in pg TEQ/g sample processed
Test duration	10 days
Matrices	Any type of sample
Sample volume/mass	Matrix- and desired limit of quantification (LOQ)-dependent
Amount of compound	Typically 10 mg. Lower for high potency compound provided in DMSO
Assessment criteria	In house methods, compliant with relevant application/regulations.
SOPs and Guidelines	BDS internal
HTS protocol	Not available yet
Key reference	Pham Ngoc L, Thesis, VU Amsterdam