

Thioredoxin-1 assay Kit

Product Information

Cat.No.

Kit-0832

Size

2x96 wells

Description

The Thioredoxin-1 assay kit provides a simple, homogenous assay for screening modulators of Trx-1 enzymatic activity in microplates. This is accomplished by monitoring the Trx-1 catalyzed reduction of insulin in the presence of Dithiothreitol (DTT), resulting in the formation of insulin aggregates which then bind avidly to the red-emitting fluorogenic ProteoStat Trx-1 detection dye. The fluorescence-based assay provides a vastly improved assay signal window, improved lower detection limit, and superior Z'-score (>0.8) relative to turbidity measurements. Intra-plate and inter-plate CVs using this assay are typically 3-6%. Human recombinant thioredoxin-1 enzyme and the thioredoxin inhibitor, aurothiomalate, are included in the kit, as well as all reagents necessary for monitoring changes in Trx-1 activity. The ProteoStat Thioredoxin-1 assay kit is capable of providing a quantitative readout of Trx-1 enzymatic activity in a robust and high-throughput fashion and can be applied to identification of Trx-1 inhibitors from chemical libraries.

Applications

This kit provides a simple, homogenous assay for screening modulators of Thioredoxin-1 enzymatic activity.

Storage

-80°C

Kit Components

ProteoStat Trx-1 detection reagent: 20 μ L
Thioredoxin-1 (human) (recombinant): 2 vials x 80 μ L
Insulin: 2 vials x 1.8 μ moles
Aurothiomalate (inhibitor): 2 vials x 25 nmoles
PBE buffer: 25 mL
Stop reagent: 1 mL
DTT: 2 vials x 1.3 mL
Deionized water: 5 mL