



## 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: 20µL  
Thioredoxin-1 (human) (recombinant): 2 vials x 80µL  
Insulin: 2 vials x 1.8µmoles  
Aurothiomalate (inhibitor): 2 vials x 25nmoles  
PBE buffer: 25ml  
Stop reagent: 1ml  
DTT: 2 vials x 1.3ml  
Deionized water: 5ml