

## 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 $\mu$ lThioredoxin-1 (human) (recombinant): 2 vials x 80 $\mu$ l;Insulin: 2 vials x 1.8 $\mu$ molesAurothiomalate (inhibitor): 2 vials x 25nmolesPBE buffer: 25mlStop reagent: 1mlDTT: 2 vials x 1.3mlDeionized water: 5ml