Thioredoxin 1 (Trx) Fluorometric Substrate, Di- FITC oxidized glutathione (FGSSGF)

CATALOG NO: 9699-200 200 assays

MOLECULAR WEIGHT: 1391.36 kDa

SEQUENCE: FITC-Glutathione-Glutathione-FITC

PURITY: >99% by HPLC analysis

FORM: Lyophilized

RECONSTITUTION: Resuspend 835 µg in 6 ml of 50 mM sodium phosphate buffer at pH 7.4. Once reconstituted, use within 3 months under proper storage conditions

STORAGE CONDITIONS: Store at 4˚C, protected from light.

DESCRIPTION:
Ready-to-use fluorogenic substrate for Trx. Trx activity can be quantified by fluorescent detection of oxidized Glutathione after reduction of the disulfide bond at 490/525 nm, using a fluorometer or multi-well fluorescence plate reader.

ASSAY PROCEDURE:

1. Resuspend lyophilized FGSSGF to final concentration of 100 µM in 6 ml of 50 mM sodium phosphate buffer at pH 7.4.

2. Prepare the following reaction mixture in a 96 well plate:

   X µl Trx **(Cat. No. P1039-100)**
   6 µl of TrxR **(Cat. No. K763-100-5)**
   2 µl of NADPH **(Cat. No. K763-100-4)**
   20 µl of 50 mM sodium phosphate buffer at pH 7.4
   Add distilled water to final volume of 70 µl.

3. Incubate reaction mixture for 20 minutes at room temperature.

4. Add 30 µl of FGSSGF

5. Read the increase in FITC fluorescence using a plate reader at Ex/Em 490/525 nm.

REFERENCE: Montano, S.J., *et al.* (2014) *Analytical Biochemistry* **449,**139-146.

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RELATED PRODUCTS:

- Human Recombinant Thioredoxin **(Cat. No. 6305-100)**
- E. Coli Recombinant Thioredoxin 1 **(Cat. No. 6329-100)**
- E. Coli Recombinant TRXB (**Cat. No. 6331-100)**
- Human Recombinant Thioredoxin 2 **(Cat. No. 6318-100)**
- Human Recombinant TXNRD1 **(Cat. No. 6330-100)**
- Thioredoxin 1 Antibody (3A1) **(Cat. No. 6166-100)**
- Thioredoxin 2 Antibody (4C5) **(Cat. No. 6167-100)**
- Thioredoxin Reductase 1 (TXNRD1) Antibody **(Cat. No. 7005-100)**
- Thioredoxin Reductase 1 Antibody (19A1) **(Cat. No. 6164-100)**
- Thioredoxin Reductase 2 Antibody (7B2) **(Cat. No. 6165-100)**
- Thioredoxin Reductase Activity Colorimetric Assay Kit **(Cat. No. K763-100)**

FOR RESEARCH USE ONLY! Not to be used on humans

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