

# PRODUCT INFORMATION



## Dieosinidiglutathione

Item No. 11547

**Formal Name:** N-[[[(2',4',5',7'-tetrabromo-3',6'-dihydroxy-3-oxospiro[isobenzofuran-1(3H),9'-[9H]xanthen]-5-yl)amino]thioxomethyl]-L-γ-glutamyl-L-cysteinyl-glycine, bimol. (2→2')-disulfide, dipotassium salt

**Synonym:** DiEGSSG

**MF:** C<sub>62</sub>H<sub>44</sub>Br<sub>8</sub>N<sub>8</sub>O<sub>22</sub>S<sub>4</sub> • 2K

**FW:** 2,098.7

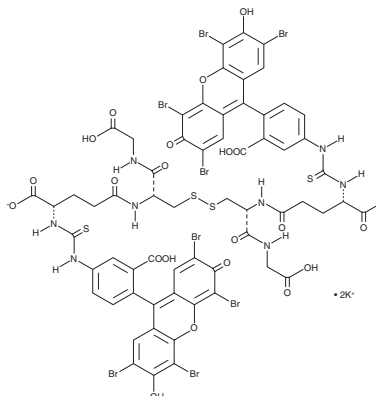
**Supplied as:** A lyophilized powder

**Ex./Em. Max:** 525/545 nm

**Storage:** -20°C

**Stability:** ≥1 year

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.



### Description

Dieosinidiglutathione (DiEGSSG) is a fluorogenic substrate for redox-sensitive enzymes.<sup>1-3</sup> It exhibits low fluorescence due to self-quenching in its disulfide form, whereas its reduced form, eosin-glutathione (eosin-GSH), is highly fluorescent and displays excitation/emission maxima of 525/545 nm, respectively.<sup>1</sup> DiEGSSG has been used to determine the activity of glutaredoxin 1 (Grx1) and Grx2, as well as thioredoxin 1 (Trx1) and thioredoxin reductase (TrxR), in cell-free assays.<sup>2,3</sup> Reconstitute in 0.1M Potassium Phosphate buffer, pH 7.4, containing 1 mM EDTA.

### References

1. Raturi, A. and Mutus, B. Characterization of redox state and reductase activity of protein disulfide isomerase under different redox environments using a sensitive fluorescent assay. *Free Radic. Biol. Med.* **43**(1), 62-70 (2007).
2. Coppo, L., Montano, S.J., Padilla, A.C., *et al.* Determination of glutaredoxin enzyme activity and protein S-glutathionylation using fluorescent eosin-glutathione. *Anal. Biochem.* **499**, 24-33 (2016).
3. Montano, S.J., Lu, J., Gustafsson, T.N., *et al.* Activity assays of mammalian thioredoxin and thioredoxin reductase: Fluorescent disulfide substrates, mechanisms, and use with tissue samples. *Anal. Biochem.* **449**, 139-146 (2014).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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