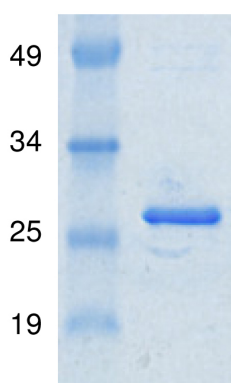


MSRB3^{His}

Methionine-R-Sulfoxide Reductase B3, EC1.8.4.6

human, recombinant, *E. coli*

Cat. No.	Amount
PR-133	100 µg



SDS-PAGE (12% gel) of 0.5 µg recombinantly expressed, NiNTA-purified MRGSH₆-hMSRB3. Despite its calculated molecular mass of 22.5 kDa the protein runs above 25 kDa in SDS-PAGE gels.

Description

MSRB3 is His-tagged at the N-terminal. MSRB3 (Methionine-R-sulfoxide reductase, EC1.8.4.6; accession number AAH40053) is one of three different mammalian MSRB enzymes. It carries out the reduction of methionine-R-sulfoxide to methionine. Human studies have shown the highest levels of expression in smooth muscle tissues. Its proposed function is the repair of oxidative damage to proteins to restore biological activity.

Activity assay

MetO-containing peptides are reduced by the enzyme in the presence of DTT.

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Liquid. Supplied in 0.1M TRIS-HCl pH 7.4 and 33% glycerol.

Activity

1 nmol of hMSRB3 will reduce 2 nmol peptide-bound Met-S-sulfoxide in 1 min at 37°C.

Molecular Weight

22.5 kDa

Purity

>90% by SDS-PAGE

Selected References:

- Hansel *et al.* (2005) Heterogeneity and function of mammalian MSRs: enzymes for repair, protection and regulation. *Biochim. Biophys. Acta* **1703**:239.
- Marchetti *et al.* (2005) Methionine sulfoxide reductases B1, B2, and B3 are present in the human lens and confer oxidative stress resistance to lens cells. *Invest. Ophthalmol. Vis. Sci* **46**:2107.
- Kim *et al.* (2004) Methionine sulfoxide reduction in mammals: characterization of methionine-R-sulfoxide reductases. *Mol. Biol. Cell* **15**:1055.
- Hansel *et al.* (2003) A second human methionine sulfoxide reductase (hMSRB2) reducing methionine-R-sulfoxide displays a tissue expression pattern distinct from hMSRB1. *Redox Report* **8**:384.