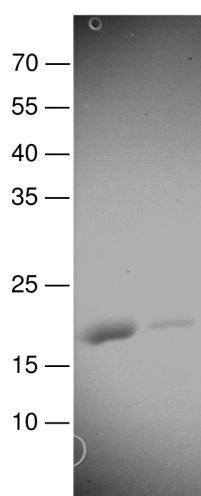


MSRB2^{His}

Methionine Sulfoxide Reductase B2, EC1.8.4.6

human, recombinant, *E. coli*

Cat. No.	Amount
PR-131	100 µg



SDS-PAGE (12% gel) of recombinantly expressed, NiNTA-purified MRGSH₆-(del1-41)-hMSRB2.

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 hMSRB2 will reduce 3 nmol peptide-bound Met-R-sulfoxide in 1 min at 37°C.

Molecular Weight

17 kDa

Purity

> 90% by SDS-PAGE

Description

MSRB2 is His-tagged at the N-terminal. MSRB2 (Methionine sulfoxide reductase, EC1.8.4.6) is ubiquitous and highly conserved. It carries out the enzymatic reduction of methionine-R-sulfoxide (MetRO) to methionine in thioredoxin-dependent manner. Human and animal studies have shown the highest levels of expression in skeletal muscle and heart. Its proposed function is the repair of oxidative damage to proteins to restore biological activity. The protein is located in mitochondria.

Activity assay

MetRO-containing peptides and free MetRO are reduced by the enzyme in the presence of DTT.

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Selected References:

Binger *et al.* (2010) Methionine-Oxidized Amyloid Fibrils Are Poor Substrates for Human Methionine Sulfoxide Reductases A and B2. *Biochemistry* **49**:2981.

Hansel *et al.* (2005) Heterogeneity and function of mammalian MSRs: enzymes for repair, protection and regulation. *Biochim. Biophys. Acta* **1703**:239.

Kim *et al.* (2004) Methionine sulfoxide reduction in mammals: characterization of methionine-R-sulfoxide reductases. *Mol. Biol. Cell* **15**:1055.

Jung *et al.* (2002) Activity, tissue distribution and site-directed mutagenesis of a human peptide methionine sulfoxide reductase of type B: hCBS1. *FEBS Lett.* **527**:91.