## ACTIVE PROTEIN



## Methionine Sulfoxide Reductase B (mutant: Selcys95cys) (human)

Background Methionine sulfoxide reductase B (MsrB), also known as SelX, is a selenoprotein. The oxidation of methionine at the sulfur atom leads to alternative epimers: R form of Met(O) and S form of Met(O). MsrB can reduce R form of both free protein-incorporated methionine sulfoxide to methionine. It has a crucial role in protecting cells against oxidative damages. MsrA reduces only the S epimer of Met(O), and MsrB reduces the R epimer of Met(O) in proteins. Although the catalytic mechanisms of MsrA and MsrB are similar, two Msrs have no sequence identity and no structural similarity.

MSR A

MSR B

S form of Met(O)

R form of Met(O)

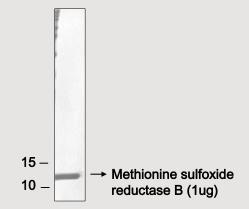
**Source** : Purified from *E.coli* expressing the human MsrB gene

Molecular Weight: 12.8 kDa

Packaging size: 0.5 mg

Concentration: 1.0 mg/ml

**Storage**: MsrB is supplied with a vial of storage buffer (20mM HEPES, pH7.0 / 1mM EDTA). Store at -80°C.



## **Background Reference:**

- 1) Zheung, D. et al. (2003) J. Biomol. NMR, 27, 183-184
- 2) Weissbach, H. (2002) Arch.Biochem.Biophys. 397(2), 172-178
- 3) Kryukov, G. (2002) Proc.Natl.Acad.Sci.U.S.A. 99(7), 4245-4250

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