

Recombinant Human Methionine Sulfoxide Reductase A (Human MSRA)

Certificate of Analysis and Data Sheet

Catalogue Number	ENZ-621
Synonyms	Mitochondrial peptide methionine sulfoxide reductase, Peptide-methionine (S)-S-oxide reductase, Peptide Met(O) reductase, Protein-methionine-S-oxide reductase, PMSR, MSRA.
Introduction	Methionine sulfoxide reductase A (MSRA) is a member of the MsrA Met sulfoxide reductase family. The MSRA enzyme has a vital function as a repair enzyme for proteins which have been inactivated by oxidation. MSRA catalyzes the reversible oxidation-reduction of methionine sulfoxide in proteins to methionine. The three substrates of the MSRA enzyme are peptide-L-methionine, thioredoxin disulfide, and H ₂ O, while its 2 products are peptide-L-methionine (R)-S-oxide and thioredoxin. The MSRA protein is ubiquitous and extremely conserved. Human and animal studies have shown the ultimate levels of expression in kidney and nervous tissue.
Description	MSRA Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 237 amino acids (24-235) and having a molecular mass of 26.2kDa. The MSRA is fused to a 24 amino acid His-Tag at N-terminus and purified by proprietary chromatographic techniques.
Source	Escherichia Coli.
Physical Appearance	Sterile Filtered clear colorless solution.
Formulation	MSRA protein solution (0.5mg/ml) is supplied in 20mM Tris-HCl buffer, pH8.0, 10% glycerol, 1mM DTT and 50mM NaCl. Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time.
Stability	For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.
Amino acid sequence	<u>MGSSHHHHHH SSGLVPRGSH MGS</u> HMGNSAS NIVSPQEALP GRKEQTPVAA KHHVNGNRTV EPFPEGTQMA VFGMGCFWGA ERKFWVLKGV YSTQVGFAGG YTSNPTYKEV CSEKTGHAEV VRVVYQPEHM SFEELLKVFV ENHDPTQGMR QGNDHGTQYR SAIYPTSAKQ MEAALSSKEN YQKVLSEHGF GPITTDIREG QTFYYAEDYH QQYLSKNPNG YCGLGGTGVS CPVGIKK.
Purity	Greater than 90.0% as determined by SDS-PAGE.
Usage	ProSpec's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.
Related Products	» MSRA E.Coli