# Recombinant MSRA protein (His tag)

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| **Catalog Number** | 532014 |
| **Synonyms** | Ecdysone-induced protein 28/29 kDa; Methionine-S-sulfoxide reductase; Peptide-methionine (S)-S-oxide reductase |
| **Species** | Drosophila melanogaster |
| **Expression System** | E. coli |
| **Accession** | P08761 |
| **Gene ID** | 39675 |
| **Molecular Weight** | Predictes a molecular mass of 29.22 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 30 kDa band. |

## Product Information

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| **Sequence Region** | 2-246 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >85%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 2-246 aa (P08761) were fused with 6His tag. |

## Storage & Handling

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| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Drosophila melanogaster Peptide Methionine Sulfoxide Reductase (MsrA) fragment (residues 2-246) is a highly purified, stable protein preparation ideal for studying oxidative damage repair mechanisms. This 245-amino acid fragment maintains the enzyme's critical methionine sulfoxide reductase activity while offering enhanced solubility for structural and biochemical applications.<br>Peptide Methionine Sulfoxide Reductase (MsrA) serves as a crucial repair enzyme that reverses oxidative damage to proteins by specifically reducing methionine sulfoxide back to methionine. This enzymatic activity is essential for maintaining protein function and cellular viability under oxidative stress conditions. The enzyme catalyzes the reduction of methionine sulfoxide in proteins but does not perform the reverse oxidation reaction, making it specifically dedicated to protein repair rather than oxidative modification. The selected fragment (residues 2-246) represents a stable, soluble unit that preserves the protein's functional domain, enabling researchers to investigate the structural basis of methionine sulfoxide reduction and develop therapeutic strategies for oxidative stress-related conditions. |