Data Sheet (Cat.No.TMPY-00538)

TargetMol

MSRB3 Protein, Human, Recombinant (His)

General Information

Synonyms:	methionine sulfoxide reductase B3;DFNB74
Protein Construction:	A DNA sequence encoding the human MSRB3 (NP_001026849.1) (Gly26-Asp181) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Gly 26
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q8IXL7-2
Molecular Weight:	18.4 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

MSRB3 (Methionine Sulfoxide Reductase B3) is a Protein Coding gene. The protein encoded by this gene catalyzes the reduction of methionine sulfoxide to methionine. This enzyme acts as a monomer and requires zinc as a cofactor. This cysteine residue of MSRB3 is conserved in orthologs from yeast to humans and is involved in binding structural zinc. The affected individuals of six unrelated families were homozygous for the same transversion (c. 265T>G) in MSRB3. In the inner ear, it is found in the sensory epithelium of the organ of Corti and vestibular end

organs as well as in cells of the spiral ganglion. MSRB3-catalyzed reduction of methionine sulfoxides to methionine is essential for hearing. Diseases associated with MSRB3 include Deafness, Autosomal Recessive 74, and Autosomal Recessive Non-Syndromic Sensorineural Deafness Type Dfnb.

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