MSRB3 Antibody / Methionine sulfoxide reductase B3 [clone 29M98] (FY12566)

Catalog No.	Formulation	Size
FY12566	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	29M98
Purity	Affinity-chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q8IXL7
Applications	Western Blot : 1:500-1:2000
Limitations	This MSRB3 antibody is available for research use only.

Description

MSRB3 antibody detects methionine sulfoxide reductase B3, a repair enzyme encoded by the MSRB3 gene. MSRB3 belongs to the methionine sulfoxide reductase family, which reduces oxidized methionine residues back to methionine. By repairing oxidatively damaged proteins, MSRB3 contributes to redox regulation, protein quality control, and cellular defense against oxidative stress. MSRB3 exists in two isoforms localized to mitochondria and endoplasmic reticulum, reflecting its broad role in maintaining proteostasis.

MSRB3 antibody is widely applied in studies of redox biology, aging, and hearing research. Mutations in MSRB3 cause autosomal recessive nonsyndromic hearing loss due to impaired protection of auditory cells against oxidative damage. By detecting MSRB3, researchers can explore how oxidative stress contributes to sensory degeneration and how protein repair mechanisms maintain tissue health.

In western blot assays, MSRB3 antibody detects protein bands of expected molecular weight in mitochondrial and ER

fractions. Immunohistochemistry highlights expression in cochlea, brain, and liver, while immunofluorescence demonstrates subcellular localization to mitochondria and ER networks. These applications provide detailed analysis of MSRB3 distribution and function.

MSRB3 contributes to cellular stress resistance by repairing oxidized methionine in metabolic and structural proteins. Its protective functions extend to aging, neurodegeneration, and metabolic disease. Dysregulation of MSRB3 has been associated with reduced stress tolerance, enhanced apoptosis, and impaired organ function. By applying MSRB3 antibody, scientists can investigate therapeutic strategies aimed at enhancing protein repair pathways.

MSRB3 antibody from NSJ Bioreagents provides strong specificity for analyzing methionine repair mechanisms and oxidative stress responses. Its reliability across multiple assays makes it a critical reagent for studying redox regulation, aging, and sensory biology.

Application Notes

Optimal dilution of the MSRB3 antibody should be determined by the researcher.

Immunogen

A synthesized peptide derived from human MSRB3 was used as the immunogen for the MSRB3 antibody.

Storage

Store the MSRB3 antibody at -20oC.