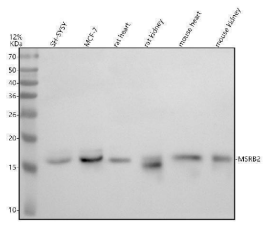
MSRB2 Antibody / Methionine sulfoxide reductase B2 Antibody (FY13581)

Catalog No.	Formulation	Size
FY13581	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9Y3D2
Applications	Western blot: 0.5-1ug/ml
Limitations	This MSRB2 Antibody / Methionine sulfoxide reductase B2 Antibody is provided for laboratory research use only.



MSRB2 Antibody by WB in human cell lines and rodent tissues. Western blot analysis using Methionine sulfoxide reductase B2 Antibody detects a band near 15 kDa in human SH-SY5Y (lane 1), human MCF-7 (lane 2), rat heart (lane 3), rat kidney (lane 4), mouse heart (lane 5), and mouse kidney (lane 6). The calculated molecular weight is approximately 20 kDa. The observed band migrates below the calculated mass; its identity as a processed form has not been established. Reduced samples containing 30 ug protein per lane were separated by 12% SDS-PAGE and transferred to nitrocellulose. Membranes were blocked with 5% nonfat milk and incubated with primary antibody at 0.5 ug/mL overnight at 4oC. An HRP-conjugated secondary antibody and chemiluminescent substrate were used for detection.

Description

MSRB2 Antibody / Methionine sulfoxide reductase B2 Antibody detects MSRB2, a mitochondrial enzyme that repairs a particular form of oxidative damage to methionine residues. Reactive oxygen species can oxidize methionine to methionine sulfoxide, potentially altering protein conformation and function. Methionine sulfoxide occurs in two stereochemical forms, and members of the MsrA and MsrB enzyme families differ in the forms they reduce. MSRB2 belongs to the MsrB group and catalyzes reduction of the R stereoisomer of methionine sulfoxide in protein substrates.

Mitochondria generate reactive intermediates during normal metabolism, making local antioxidant and protein-repair

systems important for organelle integrity. MSRB2 contributes to these systems by restoring oxidized methionine residues rather than directly removing every type of reactive oxygen species. Its activity depends on cellular reducing equivalents and cooperation with redox systems that regenerate the active enzyme. The repair of methionine oxidation can preserve the properties of susceptible proteins and help maintain mitochondrial function during fluctuating oxidative conditions. MSRB2 is distinct from cytosolic and nuclear methionine sulfoxide reductases in localization and physiological context. The Methionine sulfoxide reductase B2 Antibody designation refers to this same protein target.

Research has examined MSRB2 in relation to mitochondrial stress responses, cell survival, and the maintenance of protein function under oxidative pressure. The importance of methionine repair varies with the proteins affected and the intensity of oxidative damage. Not every oxidized methionine residue is necessarily harmful, because reversible oxidation can also contribute to regulation. MSRB2 therefore sits at the intersection of damage repair and redox biology. NSJ Bioreagents includes MSRB2 among mitochondrial oxidative-stress and protein-maintenance targets. An MSRB2 Antibody provides a means of examining the molecular functions associated with MSRB2.

Explore related research targets in our Metabolism Antibody / Metabolism Antibodies collection.

Application Notes

The recommended approach is to establish the optimal working dilution of the MSRB2 Antibody / Methionine sulfoxide reductase B2 Antibody through preliminary testing.

Immunogen

The MSRB2 Antibody was generated using a synthetic peptide corresponding to a sequence in the middle region of human MSRB2.

Storage

Store the reconstituted MSRB2 Antibody at 4oC for up to one month. For long-term storage, divide into aliquots and keep at -20oC for up to six months. Avoid repeated freeze-thaw cycles.

Alternate Names

MSRB2 antibody, Methionine-R-sulfoxide reductase B2, mitochondrial antibody, Methionine-R-sulfoxide reductase B2 antibody, mitochondrial antibody, methionine sulfoxide reductase B2 antibody, CBS 1 antibody, CBS1 antibody, CGI 131 antibody, MSRB antibody, PILB antibody

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