

MSRB2 Rabbit pAb

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Product Information

Application IHC-P, IHC-F, IF

Primary Accession

Reactivity

Mouse, Dog

Host

Clonality

Calculated MW

Physical State

Q9Y3D2

Mouse, Dog

Rabbit

Polyclonal

19536

Liquid

Immunogen KLH conjugated synthetic peptide derived from human MSRB2

Epitope Specificity 31-130/182

Isotype IgG

Purity affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Mitochondrion.

SIMILARITY Belongs to the MsrB Met sulfoxide reductase family.

Important NoteThis product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

Background Descriptions Methionine is one of the most readily oxidized essential amino acids and an

intermediate in the biosynthesis of cysteine, carnitine, taurine, lecithin, phosphatidylcholine and other phospholipids. In its oxidative state, Methionine is regulated in vivo by methionine sulfoxide reductases (Msr). MsrB2 is a 182 amino acid mitochondrial protein that is ubiquitously

expressed. Belonging to the MsrB Met sulfoxide reductase family, MsrB2 acts as a catalyst for the reduction of free and protein-bound methionine sulfoxide to methionine. Upon oxidative stress, MsrB2 is suggested to play a role in the preservation of mitochondrial integrity by decreasing the intracellular reactive oxygen species build-up through its scavenging role, hence contributing to cell survival and protein maintenance. MsrB2 utilizes zinc ions, one per

subunit, as cofactors.

Additional Information

Gene ID 22921

Other Names Methionine-R-sulfoxide reductase B2, mitochondrial, MsrB2, 1.8.4.12, MSRB2,

CBS-1, MSRB

Target/Specificity Ubiquitous. Detected in retina, ocular ciliary body, skeletal muscle, heart,

colon, bone marrow, cerebellum, small intestine, fetal brain, fetal liver,

kidney, spinal cord, lung, placenta and prostate.

Dilution IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name MSRB2

Synonyms CBS-1, MSRB

Function Methionine-sulfoxide reductase that specifically reduces methionine

(R)-sulfoxide back to methionine. While in many cases, methionine oxidation is the result of random oxidation following oxidative stress, methionine oxidation is also a post-translational modification that takes place on specific residue. Upon oxidative stress, may play a role in the preservation of

mitochondrial integrity by decreasing the intracellular reactive oxygen species build-up through its scavenging role, hence contributing to cell survival and

protein maintenance.

Cellular Location Mitochondrion

Tissue Location Ubiquitous. Detected in retina, ocular ciliary body, skeletal muscle, heart,

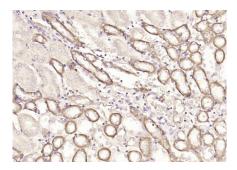
colon, bone marrow, cerebellum, small intestine, fetal brain, fetal liver,

kidney, spinal cord, lung, placenta and prostate.

Background

Methionine is one of the most readily oxidized essential amino acids and an intermediate in the biosynthesis of cysteine, carnitine, taurine, lecithin, phosphatidylcholine and other phospholipids. In its oxidative state, Methionine is regulated in vivo by methionine sulfoxide reductases (Msr). MsrB2 is a 182 amino acid mitochondrial protein that is ubiquitously expressed. Belonging to the MsrB Met sulfoxide reductase family, MsrB2 acts as a catalyst for the reduction of free and protein-bound methionine sulfoxide to methionine. Upon oxidative stress, MsrB2 is suggested to play a role in the preservation of mitochondrial integrity by decreasing the intracellular reactive oxygen species build-up through its scavenging role, hence contributing to cell survival and protein maintenance. MsrB2 utilizes zinc ions, one per subunit, as cofactors.

Images



Paraformaldehyde-fixed, paraffin embedded (mouse kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MSRB2) Polyclonal Antibody, Unconjugated (AP56872) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.