10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

MSRB2 Rabbit pAb

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Catalog # AP56872

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9Y3D2
Reactivity	Mouse, Rat
Predicted	Human, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	19536
Physical State	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 Note	This 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.

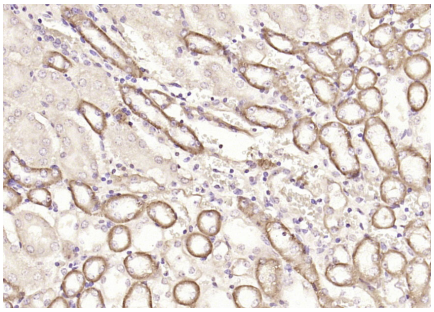
Protein Information

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.