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

MSRA Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP7321A

Product Information

Application	WB, IHC-P, FC, IF, E
Primary Accession	Q9UJ68
Other Accession	P54149
Reactivity	Human, Mouse
Predicted	Bovine, Rat, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18651
Calculated MW	26132
Antigen Region	34-63

Additional Information

Gene ID	4482
Other Names	Mitochondrial peptide methionine sulfoxide reductase, Peptide-methionine (S)-S-oxide reductase, Peptide Met(O) reductase, Protein-methionine-S-oxide reductase, PMSR, MSRA
Target/Specificity	This MSRA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 34-63 amino acids from the N-terminal region of human MSRA.
Dilution	WB~~1:1000 IHC-P~~1:100~500 FC~~1:10~50 IF~~1:100 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MSRA Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MSRA

Function	[Isoform 1]: Catalyzes the reversible oxidation-reduction of methionine sulfoxide in proteins to methionine. Has an important function as a repair enzyme for proteins that have been inactivated by oxidation (PubMed:10452521, PubMed:12039877). Plays a crucial role in repairing oxidized methionine residues in key lens proteins, such as alpha-crystallin (CRYAA/CRYAB) and cytochrome c (CYCS), thereby restoring their function and maintaining lens transparency (By similarity).
Cellular Location	[Isoform 1]: Mitochondrion. Mitochondrion matrix. Cytoplasm [Isoform 3]: Cytoplasm. Nucleus
Tissue Location	Ubiquitous. Highest expression in adult kidney and cerebellum, followed by liver, heart ventricles, bone marrow and hippocampus

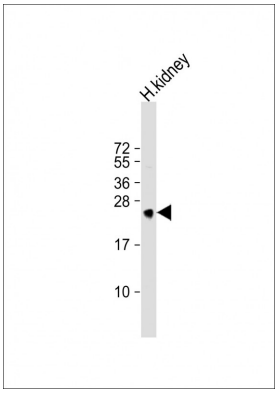
Background

MSRA is ubiquitous and highly conserved. This protein carries out the enzymatic reduction of methionine sulfoxide to methionine. Human and animal studies have shown the highest levels of expression in kidney and nervous tissue. The protein's proposed function is the repair of oxidative damage to proteins to restore biological activity.

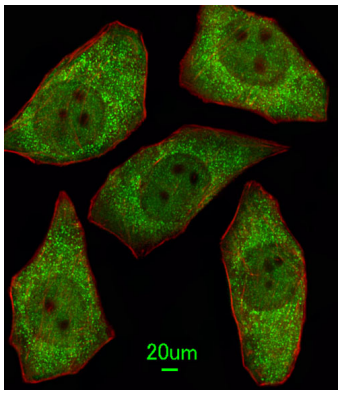
References

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Schallreuter,K.U., Rubsam,K. J. Invest. Dermatol. 128 (4), 808-815 (2008)
Picot,C.R., Perichon,M. FEBS Lett. 558 (1-3), 74-78 (2004)
Vougier,S., Mary,J. Biochem. J. 373 (PT 2), 531-537 (2003)

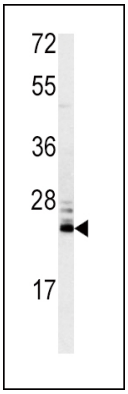
Images



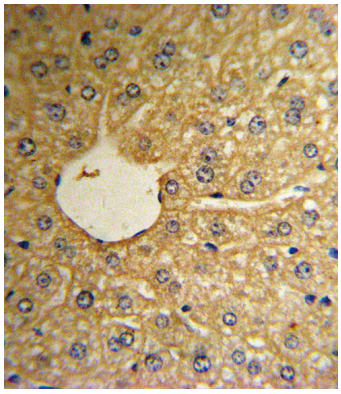
Anti-MSRA Antibody (N-term) at 1:1000 dilution + human kidney lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 26 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



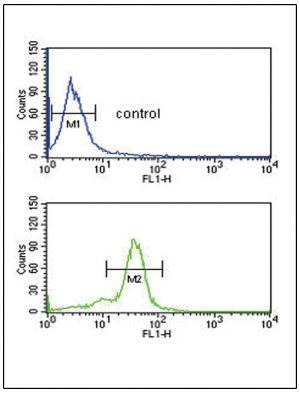
Immunofluorescent analysis of A549 cells, using MSRA Antibody (N-term) (Cat. #AP7321a). AP7321a was diluted at 1:100 dilution. Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Dylight Fluor® 554 (red) conjugated Phalloidin (red).



Western blot analysis of MSRA antibody (N-term) (Cat.#AP7321a) in mouse kidney tissue lysates (35ug/lane). MSRA (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted with MSRA Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



MSRA Antibody (N-term) (Cat. #AP7321a) flow cytometric analysis of MDA-MB435 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

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