

# SCARA3 (10-L): sc-100310

## BACKGROUND

SCARA3 (scavenger receptor class A, member 3), also known as CSR, APC7, CSR1, MSLR1 or MSRL1, is a ubiquitously expressed 606 amino acid single-pass type II membrane protein. Localized to the membrane of the endoplasmic reticulum (ER) and the Golgi apparatus, SCARA3 functions as a macrophage scavenger receptor-like protein that removes oxidative molecules or oxidation by-products from the cell. Via its ability to deplete reactive oxygen species, SCARA3 plays an important role in preventing oxidative stress within the cell. Expression of SCARA3 is upregulated in response to UV damage, further supporting its role as an oxidative scavenger. In addition, SCARA3 is downregulated in prostate tumor cells, suggesting a possible role in tumor suppression. SCARA3 contains two collagen-like domains and is expressed as multiple isoforms due to alternative splicing events.

## REFERENCES

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- Han, H.J. and Nakamura, Y. 1998. Dinucleotide repeat polymorphism in the first intron of the CSR gene. *J. Hum. Genet.* 43: 212-213.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602728. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Yu, Y.P., et al. 2004. Gene expression alterations in prostate cancer predicting tumor aggression and preceding development of malignancy. *J. Clin. Oncol.* 22: 2790-2799.
- Cozen, A.E., et al. 2004. Macrophage-targeted overexpression of urokinase causes accelerated atherosclerosis, coronary artery occlusions, and premature death. *Circulation* 109: 2129-2135.
- Yu, G., et al. 2006. CSR1 suppresses tumor growth and metastasis of prostate cancer. *Am. J. Pathol.* 168: 597-607.
- Manabe, Y., et al. 2007. CSR1, the sole target of imidazolinone herbicide in *Arabidopsis thaliana*. *Plant Cell Physiol.* 48: 1340-1358.

## CHROMOSOMAL LOCATION

Genetic locus: SCARA3 (human) mapping to 8p21.1; Scara3 (mouse) mapping to 14 D1.

## SOURCE

SCARA3 (10-L) is a mouse monoclonal antibody raised against recombinant SCARA3 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

SCARA3 (10-L) is recommended for detection of SCARA3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SCARA3 siRNA (h): sc-77804, SCARA3 siRNA (m): sc-153248, SCARA3 shRNA Plasmid (h): sc-77804-SH, SCARA3 shRNA Plasmid (m): sc-153248-SH, SCARA3 shRNA (h) Lentiviral Particles: sc-77804-V and SCARA3 shRNA (m) Lentiviral Particles: sc-153248-V.

Molecular Weight (predicted) of SCARA3 isoforms: 65/52 kDa.

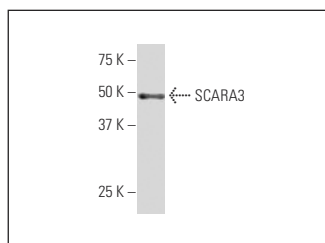
Molecular Weight (observed) of SCARA3: 50 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



SCARA3 (10-L): sc-100310. Western blot analysis of SCARA3 expression in NIH/3T3 whole cell lysate.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.