

# SAMC (Q-15): sc-103186

## BACKGROUND

Transmethylation is the biochemical process of transferring a methyl group from one compound to another. Methylation reactions are important in key cellular processes, such as post-translational modification, embryonic development and postnatal development. S-adenosylmethionine (SAM) is a coenzyme important in catalyzing transmethylation reactions that occur in the liver. SAMC (S-adenosylmethionine mitochondrial carrier protein), also known as solute carrier family 25 member 26, is a 274 amino acid protein that transports SAM, as well as metabolites, nucleotides and cofactors, through the mitochondrial inner membrane. SAMC contains 3 Solcar repeats and is encoded by a gene on human chromosome 3. SAMC is widely expressed in the brain, heart, kidney, lung, skeletal muscle, pancreas, small intestine and liver, with high expression in the testis.

## REFERENCES

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- Nakayama, J., et al. 2001. Role of histone H3 lysine 9 methylation in epigenetic control of heterochromatin assembly. *Science* 292: 110-113.
- Bird, A. 2003. Ii2 transcription unleashed by active DNA demethylation. *Nat. Immunol.* 4: 208-209.
- Agrimi, G., et al. 2004. Identification of the human mitochondrial S-adenosylmethionine transporter: bacterial expression, reconstitution, functional characterization and tissue distribution. *Biochem. J.* 379: 183-190.
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- Roje, S. 2006. S-Adenosyl-L-methionine: beyond the universal methyl group donor. *Phytochemistry* 67: 1686-1698.

## CHROMOSOMAL LOCATION

Genetic locus: SLC25A26 (human) mapping to 3p14.1.

## SOURCE

SAMC (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of SAMC of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103186 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

SAMC (Q-15) is recommended for detection of SAMC of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SAMC siRNA (h): sc-78396, SAMC shRNA Plasmid (h): sc-78396-SH and SAMC shRNA (h) Lentiviral Particles: sc-78396-V.

Molecular Weight of SAMC: 29 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

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

## PROTOCOLS

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