

# SEMA3F (G-14): sc-68796

## BACKGROUND

Semaphorins are a family of cell surface and secreted proteins that are conserved from insects to humans. Members of this family of proteins are approximately 750 amino acids in length (including signal sequences) and are defined by a conserved extracellular "semaphorin" domain of approximately 500 amino acids containing 14-16 cysteines, blocks of conserved sequences and no obvious repeats. Secreted and cell-bound semaphorins chemically attract and repel the growth of neural axons, guiding the development of intricate networks of neural tissue. SEMA3F, also known as semaphorin IV, is a secreted protein belonging to the semaphorin family. SEMA3F is believed to play a role in cell motility and cell adhesion. Expressed abundantly in many tissues, SEMA3F is present at high levels in kidney, fetal brain, lung and mammary gland.

## REFERENCES

1. Lantuejoul, S., et al. 2003. Expression of VEGF, semaphorin SEMA3F, and their common receptors neuropilins NP1 and NP2 in preinvasive bronchial lesions, lung tumours, and cell lines. *J. Pathol.* 200: 336-347.
2. Nasarre, P., et al. 2003. Semaphorin SEMA3F and VEGF have opposing effects on cell attachment and spreading. *Neoplasia* 5: 83-92.

## CHROMOSOMAL LOCATION

Genetic locus: SEMA3F (human) mapping to 3p21.31; Sema3f (mouse) mapping to 9 F2.

## SOURCE

SEMA3F (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SEMA3F 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-68796 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SEMA3F (G-14) is recommended for detection of SEMA3F of mouse, rat and 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SEMA3F (G-14) is also recommended for detection of SEMA3F in additional species, including canine and porcine.

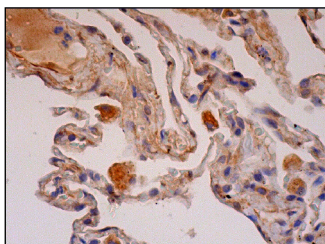
Suitable for use as control antibody for SEMA3F siRNA (h): sc-62994, SEMA3F siRNA (m): sc-62995, SEMA3F shRNA Plasmid (h): sc-62994-SH, SEMA3F shRNA Plasmid (m): sc-62995-SH, SEMA3F shRNA (h) Lentiviral Particles: sc-62994-V and SEMA3F shRNA (m) Lentiviral Particles: sc-62995-V.

Molecular Weight of SEMA3F: 88 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



SEMA3F (G-14): sc-68796. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing cytoplasmic staining of pneumocytes and macrophages.

## STORAGE

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

## 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) or our catalog for detailed protocols and support products.

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Try **SEMA (A-12): sc-74554**, our highly recommended monoclonal alternative to SEMA3F (G-14). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SEMA (A-12): sc-74554**.