

# SEMA3C (H-160): sc-33786

## BACKGROUND

SEMA3C (also designated semaphorin 3C, semaphorin E, SEMAE, SemE, sema domain, immunoglobulin domain (Ig) and short basic domain, secreted) is a ubiquitous protein that mediates axonal guidance, repulsive gradients, induction of growth cone collapse and cell survival/death. Secreted SEMA3C favors survival and neuritogenesis of cultured cerebellar granule neurons (CGNs). SEMA3C from macrophages and fibroblasts that selectively directs against sympathetic nerve fibers may be one element responsible for reduced sympathetic innervation in rheumatoid arthritis tissue. SEMA3C mutant mice die within hours after birth from congenital cardiovascular defects consisting of interruption of the aortic arch and improper septation of the cardiac outflow tract. SEMA3C is expressed in the cardiac outflow tract as neural crest cells and promotes crest cell migration into the proximal cardiac outflow tract. Semaphorins constitute a family of molecules sharing a common extracellular domain (semaphorin domain). The family includes several types of secreted and membrane-associated molecules that are grouped into eight subclasses (subclasses 1-7 and viral semaphorins).

## CHROMOSOMAL LOCATION

Genetic locus: SEMA3C (human) mapping to 7q21.11; Sema3c (mouse) mapping to 5 A3.

## SOURCE

SEMA3C (H-160) is a rabbit polyclonal antibody raised against amino acids 592-751 mapping at the C-terminus of SEMA3C precursor 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.

## APPLICATIONS

SEMA3C (H-160) is recommended for detection of precursor and mature SEMA3C and to a lesser extent SEMA3D 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)], 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).

SEMA3C (H-160) is also recommended for detection of precursor and mature SEMA3C and to a lesser extent SEMA3D in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SEMA3C siRNA (h): sc-44091, SEMA3C siRNA (m): sc-44381, SEMA3C shRNA Plasmid (h): sc-44091-SH, SEMA3C shRNA Plasmid (m): sc-44381-SH, SEMA3C shRNA (h) Lentiviral Particles: sc-44091-V and SEMA3C shRNA (m) Lentiviral Particles: sc-44381-V.

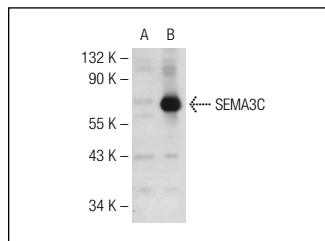
Molecular Weight of SEMA3C: 70 kDa.

Positive Controls: rat brain extract: sc-2392, SEMA3C (h): 293T Lysate: sc-173109 or SEMA3C (h2): 293T Lysate: sc-173262.

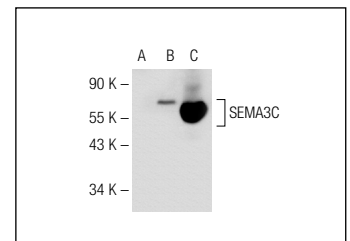
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



SEMA3C (H-160): sc-33786. Western blot analysis of SEMA3C expression in non-transfected: sc-117752 (A) and human SEMA3C transfected: sc-173262 (B) 293T whole cell lysates.



SEMA3C (H-160): sc-33786. Western blot analysis of SEMA3C expression in non-transfected: sc-117752 (A) and human SEMA3C transfected: sc-173109 (B) 293T whole cell lysates and mouse brain tissue extract (C).

## 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.



Try **SEMA (A-12): sc-74554**, our highly recommended monoclonal alternative to SEMA3C (H-160). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SEMA (A-12): sc-74554**.