

# Neu2 (M-13): sc-168736

## BACKGROUND

Neu2 (N-acetyl- $\alpha$ -neuraminidase 2), also known as SIAL2 (sialidase 2), is a 380 amino acid cytosolic sialidase that contains 2 BNR repeats and belongs to the glycosyl hydrolase 33 family. Expressed in fetal liver, skeletal muscle and an embryonic carcinoma cell line, Neu2 functions to catalytically hydrolyze sialylated compounds. More specifically, Neu2 catalyzes the hydrolysis of  $\alpha$ -(2,3),  $\alpha$ -(2,6) and  $\alpha$ -(2,8) glycosidic linkages of terminal sialic acid residues on glycoproteins, glycolipids, oligosaccharides, colominic acid and various synthetic substrates. Neu2 contains an N-linked glycosylation site, an N-terminal F/YRIP sequence motif (common to many sialidase enzymes) and two aspartic acid block consensus sequences. Human Neu2 shares over 72% sequence similarity with its rat and hamster counterparts, suggesting a conserved function between species. Expression of Neu2 in embryonic carcinoma implies a possible role in tumor formation and metastasis.

## CHROMOSOMAL LOCATION

Genetic locus: Neu2 (mouse) mapping to 1 D.

## SOURCE

Neu2 (M-13) is available as either goat (sc-168736) or rabbit (sc-168736-R) affinity purified polyclonal antibody raised against a peptide mapping near the C-terminus of Neu2 of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168736 P, (100  $\mu$ g 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

Neu2 (M-13) is recommended for detection of Neu2 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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); non cross-reactive with Neu1 or Neu4.

Neu2 (M-13) is also recommended for detection of Neu2 in additional species, including canine.

Suitable for use as control antibody for Neu2 siRNA (m): sc-149920, Neu2 shRNA Plasmid (m): sc-149920-SH and Neu2 shRNA (m) Lentiviral Particles: sc-149920-V.

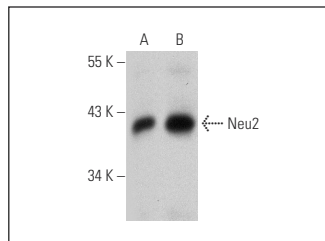
Molecular Weight of Neu2: 42 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or F9 cell lysate: sc-2245.

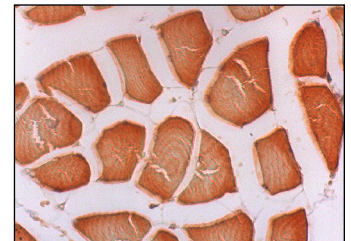
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: for goat primary antibody (sc-168736): 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), for rabbit primary antibody (sc-168736-R): 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: for goat primary antibody (sc-168736): 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, for rabbit primary antibody (sc-168736-R): 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. 4) Immunohistochemistry: for goat primary antibody (sc-168736): use Immuno-Cruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems, for rabbit primary antibody (sc-168736-R): use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



Neu2 (M-13)-R: sc-168736-R. Western blot analysis of Neu2 expression in NIH/3T3 (A) and F9 (B) whole cell lysates.



Neu2 (M-13): sc-168736. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes.

## 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.