

CMAH (S-14): sc-131131

BACKGROUND

The sialic acids are a family of acidic sugars typically found in the outer portion of the cell surface and in secreted glycoconjugates of all vertebrates. Cell membrane sialic acid is involved in cell-cell and cell-pathogen interactions and in binding of cells to the extracellular matrix. The two most common forms of sialic acid found in mammalian cells are N-acetylneuraminic acid (Neu5Ac) and its hydroxylated derivative, N-glycolylneuraminic acid (Neu5Gc). CMAH (cytidine monophospho-N-acetylneuraminic acid hydroxylase), also known as CMP-Neu5Ac hydroxylase or CMP-N-acetylneuraminic acid hydroxylase, is a 577 amino acid cytoplasmic protein that is expressed in all tissues, except in brain. Belonging to the CMP-Neu5Ac hydroxylase family, CMAH catalyzes the conversion of CMP-Neu5Ac into its hydroxylated derivative CMP-Neu5Gc, a sialic acid abundantly expressed at the surface of many cells. CMAH exists as two isoforms due to alternative splicing events. Isoform 2 is expressed in the endoplasmic reticulum.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: *Cmah* (mouse) mapping to 13 A3.1.

SOURCE

CMAH (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CMAH of mouse 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-131131 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CMAH (S-14) is recommended for detection of CMAH of mouse and rat 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).

CMAH (S-14) is also recommended for detection of CMAH in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CMAH siRNA (m): sc-142408, CMAH shRNA Plasmid (m): sc-142408-SH and CMAH shRNA (m) Lentiviral Particles: sc-142408-V.

Molecular Weight of CMAH: 66 kDa.

Positive Controls: mouse kidney extract : sc-2255.

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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


 MONOS
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Try **CMAH (E-7): sc-365023**, our highly recommended monoclonal alternative to CMAH (S-14).