

NCBE (E-13): sc-161917



The Power to Question

BACKGROUND

NCBE, also known as SLC4A10 (solute carrier family 4, sodium bicarbonate transporter, member 10), is a 1,118 amino acid multi-pass membrane protein that localizes to the basolateral membrane and belongs to a large family of anion exchange proteins. Existing as multiple alternatively spliced isoforms, NCBE functions as an electrogenic sodium-dependent chloride/bicarbonate cotransporter that plays an important role in the regulation of intracellular pH. The gene encoding NCBE maps to human chromosome 2, which houses over 1,400 genes and comprises nearly 8% of the human genome. Harlequin ichthyosis, a rare and morbid skin deformity, is associated with mutations in the chromosome 2-localized ABCA12 gene, while the lipid metabolic disorder sitosterolemia is associated with defects in the ABCG5 and ABCG8 genes, which also map to chromosome 2.

REFERENCES

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3. Damkier, H.H., et al. 2007. Molecular expression of SLC4-derived Na⁺-dependent anion transporters in selected human tissues. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 293: R2136-R2146.
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6. Chen, L.M., et al. 2008. Use of a new polyclonal antibody to study the distribution and glycosylation of the sodium-coupled bicarbonate transporter NCBE in rodent brain. *Neuroscience* 151: 374-385.
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CHROMOSOMAL LOCATION

Genetic locus: SLC4A10 (human) mapping to 2q24.2; Slc4a10 (mouse) mapping to 2 C1.3.

SOURCE

NCBE (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of NCBE 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-161917 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NCBE (E-13) is recommended for detection of NCBE 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NCBE (E-13) is also recommended for detection of NCBE in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NCBE siRNA (h): sc-94898, NCBE siRNA (m): sc-149853, NCBE shRNA Plasmid (h): sc-94898-SH, NCBE shRNA Plasmid (m): sc-149853-SH, NCBE shRNA (h) Lentiviral Particles: sc-94898-V and NCBE shRNA (m) Lentiviral Particles: sc-149853-V.

Molecular Weight of NCBE: 122 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.

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.