

# SCLT1 (E-14): sc-133430

## BACKGROUND

SCLT1 (sodium channel and clathrin linker 1), also known as CAP1A or hCAP-1A, is a 688 amino acid cytoplasmic protein that acts as a linker between the voltage-gated sodium channel, Na<sup>+</sup> CP type X $\alpha$ , and clathrin. SCLT1 is abundantly expressed in DRG (dorsal root ganglia) neurons and co-localizes with Na<sup>+</sup> CP type X $\alpha$ . SCLT1 regulates Na<sup>+</sup> CP type X $\alpha$  channel activity by promoting channel internalization. SCLT1 exists as four alternatively spliced isoforms and is encoded by a gene located on human chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: SCLT1 (human) mapping to 4q28.2; Sclt1 (mouse) mapping to 3 B.

## SOURCE

SCLT1 (E-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of SCLT1 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-133430 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SCLT1 (E-14) is recommended for detection of SCLT1 isoform 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with SCLT1-2, SCLT1-3 or SCLT1-4.

Suitable for use as control antibody for SCLT1 siRNA (h): sc-89139, SCLT1 siRNA (m): sc-153259, SCLT1 shRNA Plasmid (h): sc-89139-SH, SCLT1 shRNA Plasmid (m): sc-153259-SH, SCLT1 shRNA (h) Lentiviral Particles: sc-89139-V and SCLT1 shRNA (m) Lentiviral Particles: sc-153259-V.

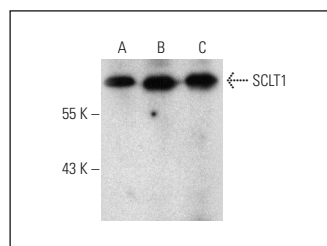
Molecular Weight of SCLT1: 81 kDa.

Positive Controls: mouse brain extract: sc-2253, rat brain extract: sc-2392 or rat skeletal muscle extract: sc-364810.

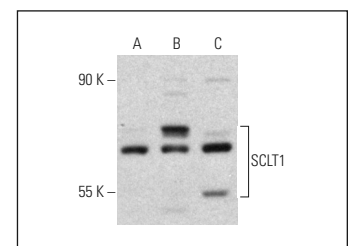
## RECOMMENDED SECONDARY REAGENTS

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



SCLT1 (E-14): sc-133430. Western blot analysis of SCLT1 expression in rat skeletal muscle (A), mouse brain (B) and rat brain (C) tissue extracts.



SCLT1 (E-14): sc-133430. Western blot analysis of SCLT1 expression in T24 (A), SK-BR-3 (B) and SK-MEL-28 (C) whole cell lysates.

## 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.