

# APHC (K-13): sc-241829

## BACKGROUND

APHC (alkaline phytoceramidase), also known as ACER3 (alkaline ceramidase 3), PHCA (phytoceramidase, alkaline) or alkaline dihydroceramidase SB89, is a 267 amino acid multi-pass membrane protein that belongs to the alkaline ceramidase family and exists as 2 alternatively spliced isoforms. Encoded by a gene that maps to human chromosome 11q13.5, APHC is ubiquitously expressed, with highest expression in placenta, and localizes to endoplasmic reticulum and Golgi apparatus membranes. Activated by Ca<sup>2+</sup> and inhibited by Zn<sup>2+</sup>, APHC is conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, *Saccharomyces cerevisiae*, *Kluyveromyces lactis*, *Magnaporthe grisea*, *Neurospora crassa*, *Arabidopsis thaliana* and rice. APHC hydrolyzes phytoceramide into phytosphingosine and free fatty acid, but does not exhibit reverse activity. APHC also participates in hydrolase activity, acting on carbon-nitrogen bonds, but not peptide bonds, in linear amides.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: ACER3 (human) mapping to 11q13.5.

## SOURCE

APHC (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of APHC 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-241829 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

APHC (K-13) is recommended for detection of APHC of 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).

APHC (K-13) is also recommended for detection of APHC in additional species, including porcine.

Suitable for use as control antibody for APHC siRNA (h): sc-96956, APHC shRNA Plasmid (h): sc-96956-SH and APHC shRNA (h) Lentiviral Particles: sc-96956-V.

Molecular Weight of APHC: 32 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 Blotting 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](http://www.scbt.com) or our catalog for detailed protocols and support products.