

# CIDE-C (7C12F11): sc-517232

## BACKGROUND

CIDE-C (also known as cell death-inducing DFFA-like effector-c, CIDE-3 or Fsp27), is a 238 amino acid protein that localizes to the cytoplasm and contains one CIDE-N domain. Expressed predominately in small intestine, colon, heart and stomach, and is present at lower levels in liver, brain and kidney. CIDE-C exists as three alternatively spliced isoforms, two of which are thought to induce apoptosis. Additionally, CIDE-C is upregulated during adipogenesis in white and brown adipose tissue, and may negatively regulate lipolysis and promote triglyceride accumulation. The gene encoding CIDE-C maps to human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci.

## REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 612120. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Liang, L., et al. 2003. Molecular cloning and characterization of CIDE-3, a novel member of the cell-death-inducing DNA-fragmentation-factor (DFF45)-like effector family. *Biochem. J.* 370: 195-203.
3. Puri, V., et al. 2007. Fat-specific protein 27, a novel lipid droplet protein that enhances triglyceride storage. *J. Biol. Chem.* 282: 34213-34218.
4. Laurencikiene, J., et al. 2008. Evidence for an important role of CIDE-A in human cancer cachexia. *Cancer Res.* 68: 9247-9254.
5. Matsusue, K., et al. 2008. Hepatic steatosis in leptin-deficient mice is promoted by the PPAR $\gamma$  target gene Fsp27. *Cell Metab.* 7: 302-311.
6. Valouusková, E., et al. 2008. Redistribution of cell death-inducing DNA fragmentation factor-like effector-a (CIDE-A) from mitochondria to nucleus is associated with apoptosis in HeLa cells. *Gen. Physiol. Biophys.* 27: 92-100.
7. Keller, P., et al. 2008. Fat-specific protein 27 regulates storage of triacylglycerol. *J. Biol. Chem.* 283: 14355-14365.
8. Magnusson, B., et al. 2008. Cell death-inducing DFF45-like effector C is reduced by caloric restriction and regulates adipocyte lipid metabolism. *Metab. Clin. Exp.* 57: 1307-1313.
9. Puri, V., et al. 2008. Cidea is associated with lipid droplets and Insulin sensitivity in humans. *Proc. Natl. Acad. Sci. USA* 105: 7833-7838.

## CHROMOSOMAL LOCATION

Genetic locus: CIDE-C (human) mapping to 3p25.3.

## SOURCE

CIDE-C (7C12F11) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 53-141 of CIDE-C of human origin.

## PRODUCT

Each vial contains 50  $\mu$ g IgG<sub>1</sub> in 0.5 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

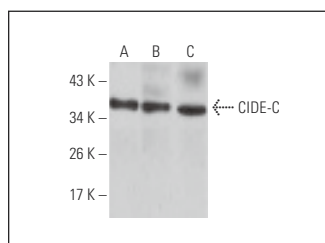
CIDE-C (7C12F11) is recommended for detection of CIDE-C of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), flow cytometry (1  $\mu$ g per 1 x 10<sup>6</sup> cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CIDE-C siRNA (h): sc-78016, CIDE-C shRNA Plasmid (h): sc-78016-SH and CIDE-C shRNA (h) Lentiviral Particles: sc-78016-V.

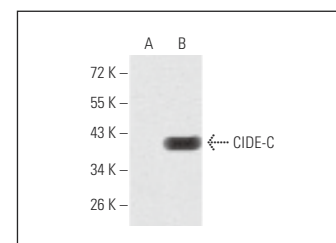
Molecular Weight of CIDE-C: 27 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, HCT-116 whole cell lysate: sc-364175 or A-431 whole cell lysate: sc-2201.

## DATA



CIDE-C (7C12F11): sc-517232. Western blot analysis of CIDE-C expression in HEK293 (A), A-431 (B) and HCT-116 (C) whole cell lysates.



CIDE-C (7C12F11): sc-517232. Western blot analysis of CIDE-C expression in non-transfected (A) and human CIDE-C (53-141)-hlgGfc transfected (B) HEK293 whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Janikiewicz, J., et al. 2023. Stearoyl-CoA desaturase 1 deficiency exacerbates palmitate-induced lipotoxicity by the formation of small lipid droplets in pancreatic  $\beta$ -cells. *Biochim. Biophys. Acta Mol. Basis Dis.* 1869: 166711.

## 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) for detailed protocols and support products.