

# DPF1 (E-12): sc-132660

## BACKGROUND

DPF1 (D4, zinc and double PHD fingers family 1), also known as NEUD4 or neuro-d4, is a 353 amino acid protein that contains 2 PHD-type zinc fingers and belongs to the requiem/DPF family. Localized to both the nucleus and the cytoplasm, DPF1 is thought to play an important role in the regulation of neuronal cell survival. Specifically, DPF1 may function as a neurospecific transcription factor that binds DNA and participates in cell cycle progression. Human and rat DPF1 share 93% sequence identity, suggesting a conserved role between species. Multiple isoforms of DPF1 exist due to alternative splicing events.

## REFERENCES

1. Buchman, V.L., et al. 1992. Differential splicing creates a diversity of transcripts from a neurospecific developmentally regulated gene encoding a protein with new zinc-finger motifs. *Nucleic Acids Res.* 20: 5579-5585.
2. Aasland, R., et al. 1995. The PHD finger: implications for chromatin-mediated transcriptional regulation. *Trends Biochem. Sci.* 20: 56-59.
3. Chestkov, A.V., et al. 1996. The d4 gene family in the human genome. *Genomics* 36: 174-177.
4. Pascual, J., et al. 2000. Structure of the PHD zinc finger from human Williams-Beuren syndrome transcription factor. *J. Mol. Biol.* 304: 723-729.
5. Ninkina, N.N., et al. 2001. Cerd4, third member of the d4 gene family: expression and organization of genomic locus. *Mamm. Genome* 12: 862-866.
6. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601670. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: DPF1 (human) mapping to 19q13.2; Dpf1 (mouse) mapping to 7 B1.

## SOURCE

DPF1 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DPF1 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-132660 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## 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.

## APPLICATIONS

DPF1 (E-12) is recommended for detection of DPF1 isoforms 1 and 2 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); non cross-reactive with DPF2 or DPF3.

DPF1 (E-12) is also recommended for detection of DPF1 isoforms 1 and 2 in additional species, including bovine and porcine.

Suitable for use as control antibody for DPF1 siRNA (h): sc-97084, DPF1 siRNA (m): sc-143155, DPF1 shRNA Plasmid (h): sc-97084-SH, DPF1 shRNA Plasmid (m): sc-143155-SH, DPF1 shRNA (h) Lentiviral Particles: sc-97084-V and DPF1 shRNA (m) Lentiviral Particles: sc-143155-V.

Molecular Weight of DPF1: 40 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

## 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.

## SELECT PRODUCT CITATIONS

1. Kuhn, D.E., et al. 2010. Chromosome 21-derived microRNAs provide an etiological basis for aberrant protein expression in human Down syndrome brains. *J. Biol. Chem.* 285: 1529-1543.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.