

Anti-Human DPF1, monoclonal (clone R1172.1.1B6)

Recommended name: Zinc finger protein neuro-d4; D4, zinc and double PHD fingers family 1
Alternative name(s): BRG1-associated factor 45B; Short names: BAF45B

Cat. No. m15-066
Lot. No. 20141201.LRH

Quantity: 100 µg
Storage: -20 °C



FOR RESEARCH USE ONLY

NOT FOR USE IN HUMANS

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UniProt / NCBI Summary

UniProt

Primary Accession # [Q92782](#)
Secondary Accession # [Q08AJ0](#); [B3KSY8](#)

NCBI

GI # [313104100](#)
GenID [8193](#)
Accession # [Q92782.2](#)
GenBank Nucleotide # [n/a](#)

Molecular Weight 42,502 Da (380 aa)

DPF1: May have an important role in developing neurons by participating in regulation of cell survival, possibly as a neurospecific transcription factor. Belongs to the neuron-specific chromatin remodeling complex (nBAF complex). During neural development a switch from a stem/progenitor to a post-mitotic chromatin remodeling mechanism occurs as neurons exit the cell cycle and become committed to their adult state. The transition from proliferating neural stem/progenitor cells to post-mitotic neurons requires a switch in subunit composition of the npBAF and nBAF complexes. As neural progenitors exit mitosis and differentiate into neurons, npBAF complexes which contain ACTL6A/BAF53A and PHF10/BAF45A, are

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Physical Characteristics

Quantity: 100 µg

Concentration: 1.0 mg/ml

Host / Isotype: mouse IgG2a

Clonality: monoclonal; ID R1172.1.1B6

Immunogen: recombinant protein corresponding to aa residues 230-380 of human DPF1

Purification: affinity-chromatography using Protein G

Formulation: 30% glycerol, 1x PBS, 0.02% sodium azide

Specificity: monospecific for human DPF1; see microarray analysis below

Reactivity: human

Stability/Storage: 12 months long term: -20 °C; short term: 4 °C; avoid freeze-thaw cycles; aliquot as required

Handling Notes: small volumes of antibody may occasionally become entrapped in the seal of the product vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container cap.

Tested Research Applications

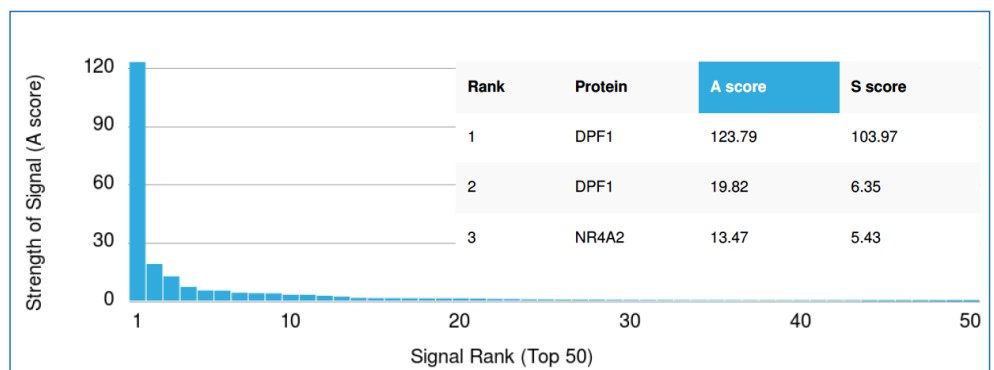
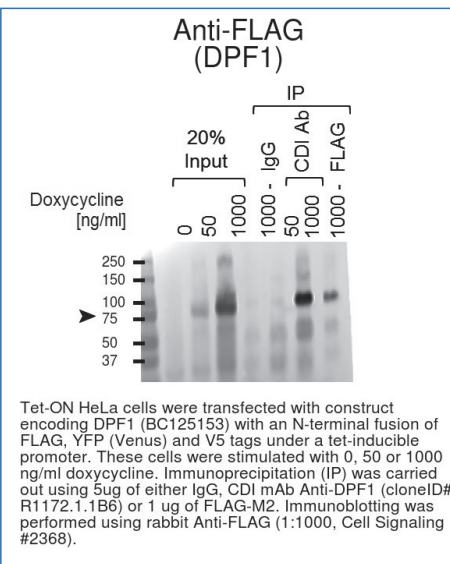
Immunoprecipitation: recommended; see below.

ChIP-Seq: recommended; see page 2

Western Blot: tested on cells transfected with a construct encoding DPF1; utility on native cells under evaluation

Octet: Recommended.

Quality Assurance



Specificity Analysis with HuProt™ Human Proteome Microarray: Anti Human DPF1 (clone R1172.1.1B6) was analyzed using the CDI HuProt™ Human Proteome Microarray.

For more information on A/S scores and how they relate to specificity, see page 2.

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Uniprot / NCBI Summary

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exchanged for homologous alternative ACTL6B/BAF53B and DPF1/BAF45B or DPF3/BAF45C subunits in neuron-specific complexes (nBAF). The npBAF complex is essential for the self-renewal/proliferative capacity of the multipotent neural stem cells. The nBAF complex along with CREST plays a role regulating the activity of genes essential for dendrite growth. Belongs to the requiem/DPF family. 3 isoforms of the human protein are produced by alternative splicing.

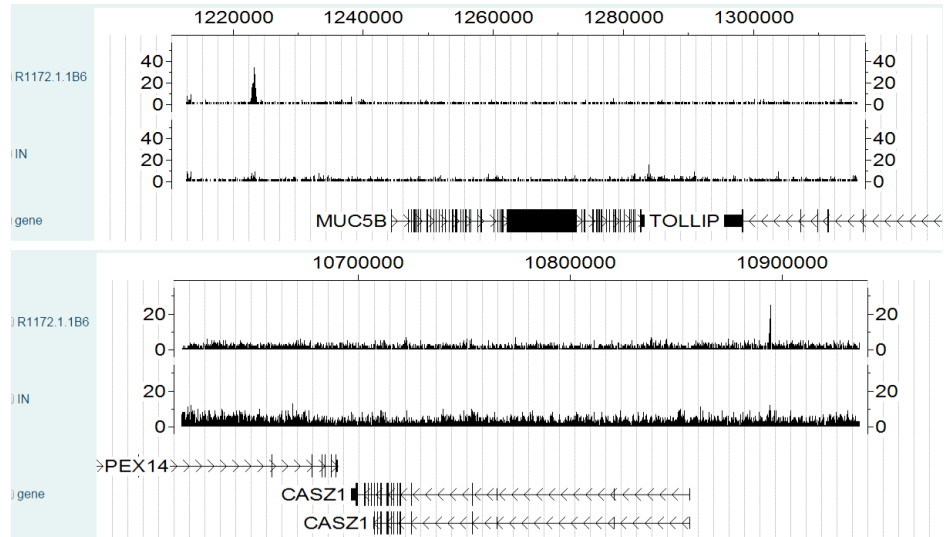
Cellular Component: cytoplasm; nucleus

General Reference:

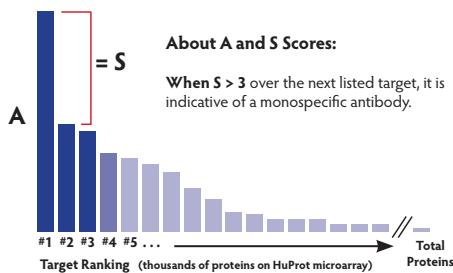
Ishizaka A, Mizutani T, Kobayashi K, Tando T, Sakurai K, Fujiwara T, Iba H (2012) Double plant homeodomain (PHD) finger proteins DPF3a and -3b are required as transcriptional co-activators in SWI/SNF complex-dependent activation of NF-κB RelA/p50 heterodimer. *J Biol Chem* 287:11924-33. [[PubMed](#)]

Tested Research Applications

ChIP-Seq: Recommended



The ChIP was performed with chromatin from 10 million HCT116 cells and 3 µg of Anti-DPF1 (cloneID # R1172.1.1B6) antibody. The ChIP DNA was sequenced on an Illumina HiSeq platform and read counts were calculated at consecutive 100 bp bins across the human genome hg19. Normalized read-count levels for ChIP-seq of DPF1 (R1172.1.1B6) and control (IN) around the CASZ1 and MUC5B loci are displayed in the CisGenome browser.



Statistical Analysis: Thousands of GenePix data points (from the microarray) are analyzed in terms of signal strength and ranked accordingly.

SUMMARY: The A-score indicates the number of standard deviations above background seen for the mean signal bound by the target antigen. The S-score represents the difference between the A-score of the target antigen and the next best hit on the array. S-scores **greater than 3 standard deviations over the next listed target** are deemed statistically significant and indicate **highly specific antibodies**. [More info at cdi-lab.com/HighSpec.html](#)

The development of this antibody was supported by the National Institutes of Health Protein Capture Reagent Program under award U54HG06434 to CDI Laboratories and Johns Hopkins University.

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