DABP (N-12): sc-131142

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BACKGROUND

DABP (D-boxBP, D site-binding protein, Albumin D-element-binding protein, TAXREB302) is a 325 amino acid protein that belongs to the bZIP family (PAR subfamily) and contains one bZIP domain. It functions as a transcriptional activator that recognizes and binds to the promoter sequence 5'-RTTAYG-TAAY-3' found in the promoter region of genes such as albumin, CYP2A4 and CYP2A5. It is not essential for circadian rhythm generation, however, it does help modulate important clock output genes. DABP may be a direct target for regulation by the circadian pacemaker component Clock. Mice deficient for bZip PAR gene products (such as DABP, EPAS-1 and TEF) are highly susceptible to generalized spontaneous and audiogenic epilepsies. This is likely because bZip PAR targets the gene that encodes pyridoxal kinase. This kinase converts vitamin B6 derivatives into pyridoxal phosphate (PLP) which is a coenzyme for amino acid and neurotransmitter metabolism.

REFERENCES

1. Szpirer, C., et al. 1992. Chromosomal localization in man and rat of the genes encoding the liver-enriched transcription factors C/EBP, DBP, and HNF1/LFB-1 (CEBP, DBP, and transcription factor 1, TCF1, respectively) and of the hepatocyte growth factor/scatter factor gene (HGF). Genomics 13: 293-300.

2. Khatib, Z.A., et al. 1995. Chromosomal localization and cDNA cloning of the human DBP and TEF genes. Genomics 23: 344-351.

3. Shutler, G., et al. 1996. Genomic structure of the human D-site binding protein (DBP) gene. Genomics 34: 334-339.

4. Brown, S.A., et al. 1999. The ins and outs of circadian timekeeping. Curr. Opin. Genet. Dev. 9: 588-594.

5. Schrem, H., et al. 2004. Liver-enriched transcription factors in liver function and development. Part II: the C/EBPs and D site-binding protein in cell cycle control, carcinogenesis, circadian gene regulation, liver regeneration, apoptosis, and liver-specific gene regulation. Pharmacol. Rev. 56: 291-330.

CHROMOSOMAL LOCATION

Genetic locus: DBP (human) mapping to 19q13.33; Dbp (mouse) mapping to 7 B4.

SOURCE

DABP (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of DABP 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-131142 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.

APPLICATIONS

DABP (N-12) is recommended for detection of DABP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

DABP (N-12) is also recommended for detection of DABP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for DABP siRNA (h): sc-97554, DABP siRNA (m): sc-142865, DABP shRNA Plasmid (h): sc-97554-SH, DABP shRNA Plasmid (m): sc-142865-SH, DABP shRNA (h) Lentiviral Particles: sc-97554-V and DABP shRNA (m) Lentiviral Particles: sc-142865-V.

Molecular Weight of DABP: 34 kDa.

Positive Controls: DABP (h): 293 Lysate: sc-112971 or HeLa nuclear extract: sc-2120.

DATA
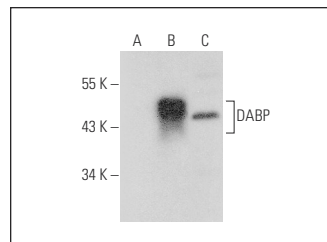
DABP (N-12): sc-131142. Western blot analysis of DABP expression in non-transfected: sc-117750 (**A**) and human DABP transfected: sc-112971 (**B**) whole cell lysates and HeLa nuclear extract (**C**).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
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Try **DABP (H-6): sc-390146** or **DABP (DBP5H08): sc-81073**, our highly recommended monoclonal alternatives to DABP (N-12).