DABP (DBP5H08): sc-81073



The Power to Questio

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

- Szpirer, C., Riviere, M., Cortese, R., Nakamura, T., Islam, M.O., Levan, G. and Szpirer, J. 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., Inaba, T., Valentine, M. and Look, A.T. 1995. Chromosomal localization and cDNA cloning of the human DBP and TEF genes. Genomics 23: 344-351.
- Shutler, G., Glassco, T., Kang, X., Korneluk, R. and Mueller, C.R. 1996. Genomic structure of the human D-site binding protein (DBP) gene. Genomics 34: 334-339.
- 4. Brown, S.A. and Schibler, U. 1999. The ins and outs of circadian timekeeping. Curr. Opin. Genet. Dev. 9: 588-594.
- Schrem, H., Klempnauer, J. and Borlak, J. 2004. Liver-enriched transcription factors in liver function and development. Part II: the C/EBPs and D sitebinding protein in cell cycle control, carcinogenesis, circadian gene regulation, liver regeneration, apoptosis, and liver-specific gene regulation. Pharmacol. Rev. 56: 291-330.
- Gachon, F., Fonjallaz, P., Damiola, F., Gos, P., Kodama, T., Zakany, J., Duboule, D., Petit, B., Tafti, M. and Schibler, U. 2004. The loss of circadian PAR bZip transcription factors results in epilepsy. Genes Dev. 18: 1397-1412.

CHROMOSOMAL LOCATION

Genetic locus: DBP (human) mapping to 19q13.33.

SOURCE

DABP (DBP5H08) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of DABP of human origin.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

PRODUCT

Each vial contains 100 μg lgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

APPLICATIONS

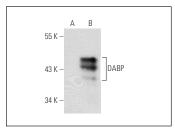
DABP (DBP5H08) is recommended for detection of DABP of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

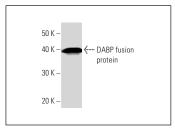
Suitable for use as control antibody for DABP siRNA (h): sc-97554, DABP shRNA Plasmid (h): sc-97554-SH and DABP shRNA (h) Lentiviral Particles: sc-97554-V.

Molecular Weight of DABP: 34 kDa.

Positive Controls: DABP (h): 293 Lysate: sc-112971, NCI-H929 whole cell lysate: sc-364786 or BJAB whole cell lysate: sc-2207.

DATA





DABP (DBP5H08): sc-81073. Western blot analysis of DABP expression in non-transfected: sc-110760 (**A**) and human DABP transfected: sc-112971 (**B**) 293 whole cell lysates

DABP (DBP5H08): sc-81073. Western Blot analysis of human recombinant DABP fusion protein.

RESEARCH USE

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

PROTOCOLS

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

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