Technical Data Sheet

Purified Mouse Anti-ICBP90

Product Information

 $\begin{tabular}{llll} \textbf{Material Number:} & \textbf{612264} \\ \textbf{Size:} & 50 \ \mu g \\ \textbf{Concentration:} & 250 \ \mu g/ml \\ \textbf{Clone:} & 28/ICBP90 \\ \end{tabular}$

Immunogen: Human ICBP90 aa. 199-298

 Isotype:
 Mouse IgG2a

 Reactivity:
 QC Testing: Human

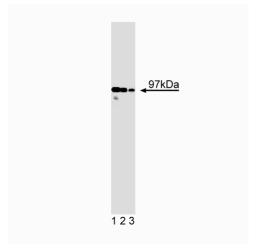
Target MW: 97 kDa

Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium

azide.

Description

DNA topoisomerases are ubiquitous nuclear enzymes that alter the topology of DNA. Topoisomerase I produces transient single-stranded breaks in DNA, while topoisomerase II produces transient double-stranded breaks in DNA. These DNA breaks are important for DNA replication and chromosome condensation and segregation. Two types of topoisomerase II have been identified, TopoIIα and TopoIIβ. During interphase, TopoIIα is found in the nucleoplasm and nucleoli, and in mitosis, TopoIIα is found associated with metaphase chromosomes and centromeres. Transcriptional control of TopoIIα expression is regulated through multiple gene promoters, which include five inverted CCAAT boxes, one ATF binding sequence, and two GC-rich boxes. ICBP90 was identified in one-hybrid screen of proteins that can bind an inverted CCAAT box. ICBP90 is expressed highest in proliferative tissues such as thymus, liver, and bone marrow. Overexpression of ICBP90 in COS-1-transfected cells leads to enhanced expression of TopoIIα. ICBP90 co-localizes with TopoIIα in proliferating areas of appendix and in high grade breast carcinomas. Thus, ICBP90 may be an important transcripitonal regulator of TopoIIα expression in proliferating cells.



Western blot analysis of ICBP90 on HeLa lysate. Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of ICBP90.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Fluorescence microscopy	Not Recommended

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612264 Rev. 1 Page 1 of 2

Product Notices

- 1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
- 2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
- 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
- 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Hopfner R, Mousli M, Garnier JM, et al. Genomic structure and chromosomal mapping of the gene coding for ICBP90, a protein involved in the regulation of the topoisomerase Ilalpha gene expression. *Gene*. 2001; 266(1-2):15-23.(Biology)

Hopfner R, Mousli M, Jeltsch JM, et al. ICBP90, a novel human CCAAT binding protein, involved in the regulation of topoisomerase Ilalpha expression. *Cancer Res.* 2000; 60(1):121-128.(Biology)

612264 Rev. 1 Page 2 of 2