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Product Information

Anti-YB-1 (N-Terminal)
produced in rabbit, affinity isolated antibody

Catalog Number **Y0271**

Product Description

Anti-YB-1 (N-Terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 137-150 of human YB-1 (GeneID: 4904), conjugated to KLH. The corresponding sequence is identical in rat and mouse proteins. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-YB-1 (N-Terminal) specifically recognizes YB-1 in human, mouse, and rat by immunoblotting (~50 kDa). An additional, weaker and higher molecular weight band may be seen using some extract preparations. Detection of the YB-1 band by immunoblotting is specifically inhibited by the immunizing peptide.

YB-1 (also known as YB1, BP-8, CSDB, DBPB, CSDA2, EFI-A and NSEP1) is a member of the evolutionary conserved Cold-Sock Domain (CSD) containing proteins. These are also known as Y-box transcription factors, as they were the first shown to bind the Y-box promoter element to regulate gene expression.[1] These proteins are enriched in the cytoplasm where they are major components of messenger RNP complexes and participate in different steps of mRNA biogenesis. In response to different physiological and environmental stimulation, CDS proteins shuttle between the cytoplasmic and nuclear compartments.[2, 3] Three CDS proteins were identified in mice: YB-1 (encoded by *Ybx1*), YBOX2, known also as DBPC (encoded by *YBX2*) and DBPA (encoded by *Csda*).[4-6] Each of these proteins is composed of three domains: the N-terminal which is thought to function as a trans-activation regulatory domain, a highly conserved nucleic acid binding domain (the CSD), and C-terminal domain, thought to be involved in protein-protein interactions.[2, 4]

YB-1 was shown to play important roles in a wide variety of cellular functions such as transcriptional and translation regulation, DNA repair, drug resistance and stress responses.[7-9] It is ubiquitously expressed in adult tissues and throughout embryogenesis. YB-1-deficient embryos die during late embryonic development and exhibit a runting phenotype.[6]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 1-2 µg/mL is recommended using HEK-293T or NIH-3T3 cell lysates, and 0.5-1 µg/mL using PC-12 cell lysates.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

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