

# Anti-Topoisomerase 3 beta1 Antibody

Catalog # AP51579

## Product Information

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|-------------------|-------------------------------------|
| Application       | WB, IHC                             |
| Primary Accession | <a href="#">O95985</a>              |
| Reactivity        | Human, Mouse, Rat, Pig, Bovine, Dog |
| Host              | Rabbit                              |
| Clonality         | Polyclonal                          |
| Calculated MW     | 96662                               |

## Additional Information

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|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Gene ID            | 8940                                                                                                                                                 |
| Other Names        | TOP3B1; DNA topoisomerase 3-beta-1; DNA topoisomerase III beta-1                                                                                     |
| Target/Specificity | KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human Topoisomerase 3 beta1. The exact sequence is proprietary. |
| Dilution           | WB~~WB (1/500 - 1/1000) IHC~~1:100~500                                                                                                               |
| Format             | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.                                            |
| Storage            | Store at -20 °C.Stable for 12 months from date of receipt                                                                                            |

## Protein Information

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| Name            | TOP3B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Synonyms        | TOP3B1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Function        | Releases the supercoiling and torsional tension of DNA introduced during the DNA replication and transcription by transiently cleaving and rejoining one strand of the DNA duplex. Introduces a single-strand break via transesterification at a target site in duplex DNA. The scissile phosphodiester is attacked by the catalytic tyrosine of the enzyme, resulting in the formation of a DNA-(5'-phosphotyrosyl)- enzyme intermediate and the expulsion of a 3'-OH DNA strand. The free DNA strand then undergoes passage around the unbroken strand thus removing DNA supercoils. Finally, in the religation step, the DNA 3'-OH attacks the covalent intermediate to expel the active-site tyrosine and restore the DNA phosphodiester backbone (By similarity). Possesses negatively supercoiled DNA relaxing activity. |
| Tissue Location | Isoform 1 is found in testis, heart and skeletal muscle. A 4 kb transcript which                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

probably represents isoform 2 is found in thymus, kidney and pancreas.

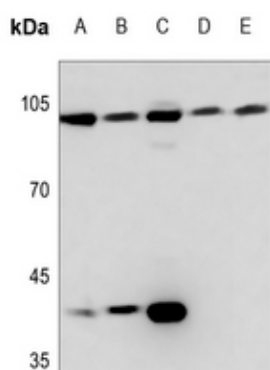
## References

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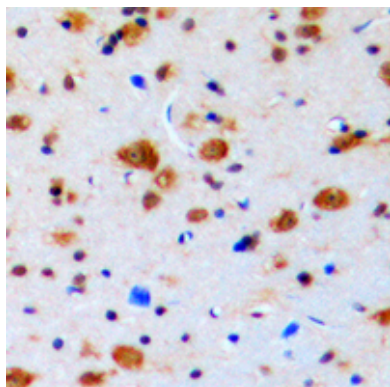
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Kawasaki K.,et al.Genome Res. 7:250-261(1997).  
Hanai R.,et al.Submitted (AUG-1997) to the EMBL/GenBank/DDBJ databases.  
Riou J.F.,et al.Submitted (FEB-1999) to the EMBL/GenBank/DDBJ databases.  
Collins J.E.,et al.Genome Biol. 5:R84.1-R84.11(2004).

## Images

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Western blot analysis of Topoisomerase 3 beta1 expression in HEK293T (A), SHSY5Y (B), K562 (C), mouse liver (D), rat liver (E) whole cell lysates. (Predicted band size: 96 kD; Observed band size: 100 kD)



Immunohistochemical analysis of Topoisomerase 3 beta1 staining in human brain formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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