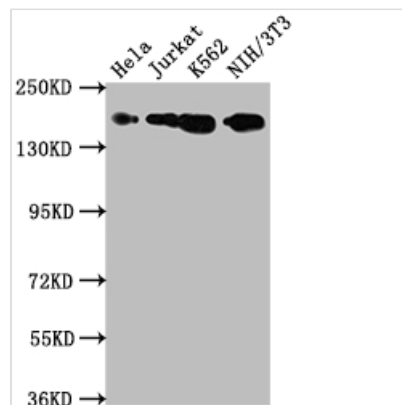




TOP2A Antibody

Product Code	CSB-RA696677A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P11388
Immunogen	A synthesized peptide derived from human Topoisomerase II alpha
Species Reactivity	Human, Mouse
Tested Applications	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
Relevance	Control of topological states of DNA by transient breakage and subsequent rejoining of DNA strands. Topoisomerase II makes double-strand breaks. Essential during mitosis and meiosis for proper segregation of daughter chromosomes. May play a role in regulating the period length of ARNTL/BMAL1 transcriptional oscillation (By similarity).
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling; Cancer
Gene Names	TOP2A
Accession NO.	5B10

Image



Western Blot

Positive WB detected in: HeLa whole cell lysate, Jurkat whole cell lysate, K562 whole cell lysate, NIH/3T3 whole cell lysate

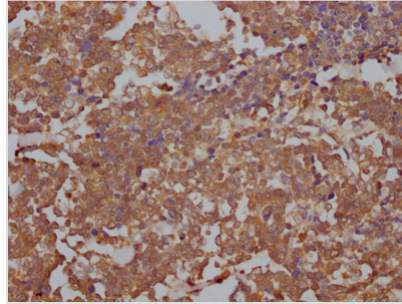
All lanes: TOP2A antibody at 1:1500

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 175, 178, 179, 183 kDa

Observed band size: 175 kDa



IHC image of CSB-RA696677A0HU diluted at 1:100 and staining in paraffin-embedded human lung cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

The production of the recombinant TOP2A antibody depended on Single B Cell technology. There are 3 main steps in the production: 1, Isolation of single B cells. High-throughput methods could be used to obtain the efficient identification and desired specificity of B cells. 2, Single B cell antibody sequencing and cloning. In this step, the antibody gene sequence of TOP2A was obtained and introduced to plasmids, which then would be transferred to mammalian cells for in vitro expression of the TOP2A antibody. 3, Screening of antibodies. The target antibody was obtained in this step. And it has been validated in ELISA, WB, IHC.

Topoisomerase II isozyme TOP2A is a key component of mitotic chromosomes and is required for mitotic chromosome condensation in mammalian cells. TOP2A is involved in chromosomal segregation and DNA replication. It functions specifically chromosomal untangling and is essential for sister chromatid segregation prior to anaphase. It's also needed to activate the decatenation checkpoint. In anaphase, TOP2A is essential for centromere decatenation and the resolution of chromatin bridges and ultrafine DNA bridges (UFBs).