Datasheet for ABIN2854837

anti-Topoisomerase II alpha antibody (C-Term)

3 Images

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Overview

Quantity:	100 µL
Target:	Topoisomerase II alpha (TOP2A)
Binding Specificity:	C-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Topoisomerase II alpha antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	Carrier-protein conjugated synthetic peptide encompassing a sequence within the C-terminus region of human Topoisomerase II alpha. The exact sequence is proprietary.
Isotype:	IgG
Cross-Reactivity:	Human
Characteristics:	Rabbit polyclonal antibody to Topoisomerase II alpha (topoisomerase (DNA) II alpha 170 kDa) Topoisomerase II alpha antibody [C3], C-term
Purification:	Purified by antigen-affinity chromatography.

Target Details

Target:	Topoisomerase II alpha (TOP2A)

Target Details

Alternative Name:	DNA topoisomerase II alpha (TOP2A Products)
Background:	This gene encodes a DNA topoisomerase, an enzyme that controls and alters the topologic states of DNA during transcription. This nuclear enzyme is involved in processes such as chromosome condensation, chromatid separation, and the relief of torsional stress that occurs during DNA transcription and replication. It catalyzes the transient breaking and rejoining of two strands of duplex DNA which allows the strands to pass through one another, thus altering the topology of DNA. Two forms of this enzyme exist as likely products of a gene duplication event. The gene encoding this form, alpha, is localized to chromsome 17 and the beta gene is localized to chromosome 3. The gene encoding this enzyme functions as the target for several anticancer agents and a variety of mutations in this gene have been associated with the development of drug resistance. Reduced activity of this enzyme may also play a role in ataxia-telangiectasia. Cellular Localization: Cytoplasm , Nucleus , nucleoplasm
Molecular Weight:	174 kDa
Gene ID:	7153
UniProt:	P11388
Pathways:	Cell Division Cycle, Mitotic G1-G1/S Phases

Application Details

Application Notes:	WB: 1:500-1:3000. IHC-P: 1:100-1:1000. Optimal dilutions/concentrations should be determined by the researcher. Not tested in other applications.
Comment:	Positive Control: H1299
Restrictions:	For Research Use only

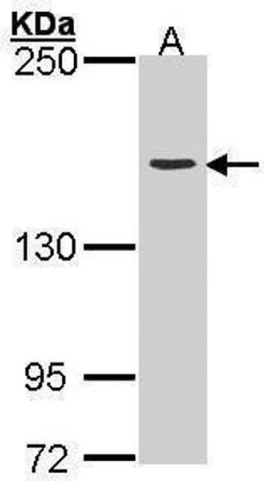
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	0.1M Tris-Glycine (pH 7), 10 % Glycerol, 0.01 % Thimerosal
Preservative:	Thimerosal (Merthiolate)
Precaution of Use:	This product contains Thimerosal (Merthiolate): a POISONOUS AND HAZARDOUS SUBSTANCE

Handling

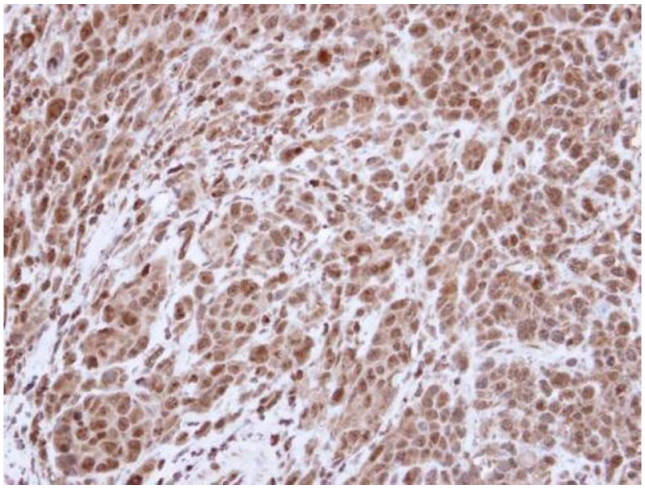
	which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Store as concentrated solution. Centrifuge briefly prior to opening vial. For short-term storage (1-2 weeks), store at 4°C. For long-term storage, aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.

Validation report #104339 for Multiplex Immunohistochemistry (mIHC)



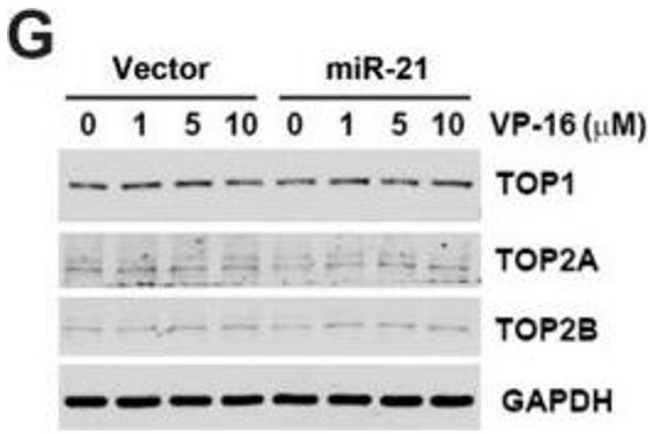
Western Blotting

Image 1. WB Image Sample (30 ug of whole cell lysate) A: H1299 5% SDS PAGE antibody diluted at 1:3000



Immunohistochemistry

Image 2. IHC-P Image Immunohistochemical analysis of paraffin-embedded SAS Xenograft , using Topoisomerase II alpha , antibody at 1:500 dilution.



Western Blotting

Image 3. Effect of miR-21 overexpression on chemosensitivity. (A) mRNA expression of miR-21 and programmed cell death 4 (PDCD4) in corresponding vector-overexpressing DLD-1 (DLD-1-vector) and miR-21-overexpressing DLD-1 (DLD-1-miR-21) cells were analyzed by qPCR. (B) Protein expressions of PDCD4 in DLD-1-vector and DLD-1-miR-21 cells were analyzed by Western blot analysis. (C) Growth rates of DLD-1-vector and DLD-1-miR-21 cells were measured by cell counts at approximately 1 to 4 days. $p < 0.05$ (*) indicates significant differences between DLD-1-miR-21 and DLD-1-vector cells. (D) Cell morphology was observed under bright-field microscopy. (E) DLD-1-vector and DLD-1-miR-21 cells were treated with various doses of 5-fluorouracil (5-FU), SN-38, doxorubicin, and VP-16 for 72 h. Cell viability was analyzed by an 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyl tetrazolium bromide (MTT) assay. $p < 0.05$ (*), $p < 0.01$ (**), or $p < 0.001$ (***) indicates significant differences between DLD-1-miR-21 and DLD-1-vector cells. n.d., not determined. (F) DLD-1-vector and DLD-1-miR-21 cells were treated with various doses of VP-16 for 48 h. Whole-cell lysates were prepared and subjected to a Western blot analysis. (G) DLD-1-vector and DLD-1-miR-21 cells were treated with various doses of VP-16 for 24 h. Whole-cell lysates were prepared and subjected to a Western blot analysis. (H) DLD-1-vector and DLD-1-miR-21 cells were treated with various doses of VP-16 for 1 h. A band-depletion assay was performed as described in ""Materials and Methods"". - figure provided by CiteAb. Source: PMID31505885