

Product datasheet

Anti-Topoisomerase I antibody [EPR5376(2)] ab131166

Recombinant RabMAb

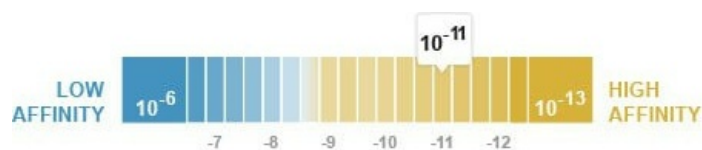
6 Images

Overview

Product name	Anti-Topoisomerase I antibody [EPR5376(2)]
Description	Rabbit monoclonal [EPR5376(2)] to Topoisomerase I
Host species	Rabbit
Tested applications	Suitable for: WB, ICC/IF Unsuitable for: Flow Cyt, IHC-P or IP
Species reactivity	Reacts with: Human Does not react with: Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: MCF7, Jurkat, SW480 and K562 cell lysates. ICC/IF: MCF7 and HaCaT cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here . Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K_D)	K _D = 4.67 x 10 ⁻¹¹ M



[Learn more about K_D](#)

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide
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Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant

Purity Protein A purified
Clonality Monoclonal
Clone number EPR5376(2)
Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab131166 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/10000. Detects a band of approximately 95 kDa (predicted molecular weight: 91 kDa).
ICC/IF		1/250 - 1/500.

Application notes Is unsuitable for Flow Cyt, IHC-P or IP.

Target

Function The reaction catalyzed by topoisomerases leads to the conversion of one topological isomer of DNA to another.

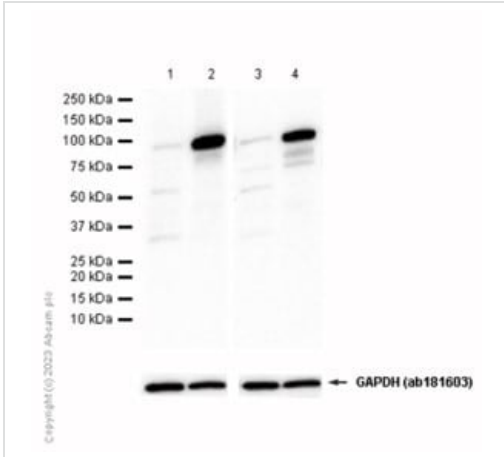
Involvement in disease Note=A chromosomal aberration involving TOP1 is found in a form of therapy-related myelodysplastic syndrome. Translocation t(11;20)(p15;q11) with NUP98.

Sequence similarities Belongs to the eukaryotic type I topoisomerase family.

Post-translational modifications Sumoylated. Lys-117 is the main site of sumoylation. Sumoylation plays a role in partitioning TOP1 between nucleoli and nucleoplasm. Levels are dramatically increased on camptothecin (CPT) treatment.

Cellular localization Nucleus > nucleolus. Nucleus > nucleoplasm. Diffuse nuclear localization with some enrichment in nucleoli. On CPT treatment, cleared from nucleoli into nucleoplasm. Sumoylated forms found in both nucleoplasm and nucleoli.

Images



Western blot - Anti-Topoisomerase I antibody [EPR5376(2)] (ab131166)

All lanes : Anti-Topoisomerase I antibody [EPR5376(2)] (ab131166) at 1/1000 dilution

Lane 1 : K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysate, prepared in RIPA lysis method

Lane 2 : K-562 (Human chronic myelogenous leukemia lymphoblast) whole cell lysate, prepared in 1% SDS HOT lysis method

Lane 3 : MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate, prepared in RIPA lysis method

Lane 4 : MCF7 (Human breast adenocarcinoma epithelial cell) whole cell lysate, prepared in 1% SDS HOT lysis method

Lysates/proteins at 20 µg per lane.

Secondary

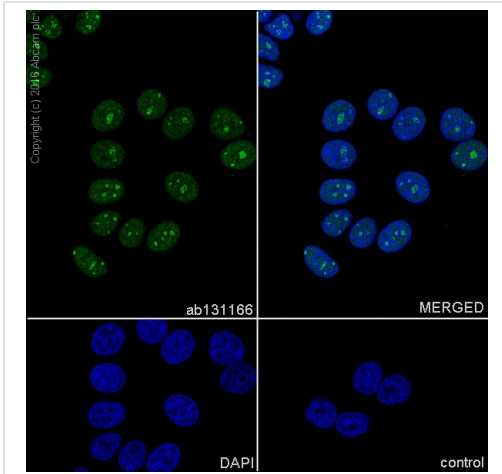
All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

Predicted band size: 91 kDa

Observed band size: 91 kDa

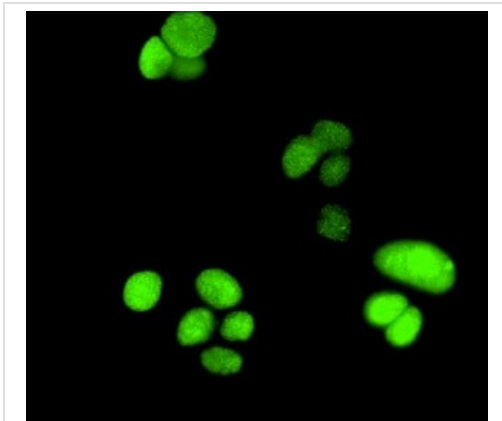
Exposure time: 40 seconds

Blocking buffer: 5%NFDM/TBST.



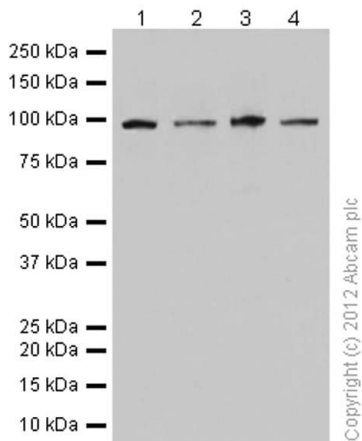
Immunocytochemistry/Immunofluorescence analysis of HaCaT (Human keratinocyte cell line) labelling Topoisomerase I with purified ab131166 at 1/500. Cells were fixed with 4% PFA and permeabilized with 0.1% triton X-100. **ab150077** Goat anti rabbit IgG (Alexa Fluor® 488) at 1/1000 was used as the secondary antibody. Nuclei were counterstained with DAPI. PBS was used instead of the primary antibody as the negative control.

Immunocytochemistry/ Immunofluorescence - Anti-Topoisomerase I antibody [EPR5376(2)] (ab131166)



Immunofluorescent analysis of MCF7 cells labelling Topoisomerase I with ab131166 at 1/250 dilution.

Immunocytochemistry/ Immunofluorescence - Anti-Topoisomerase I antibody [EPR5376(2)] (ab131166)



Western blot - Anti-Topoisomerase I antibody
[EPR5376(2)] (ab131166)

All lanes : Anti-Topoisomerase I antibody [EPR5376(2)]
(ab131166) at 1/10000 dilution

Lane 1 : MCF7 (Human breast adenocarcinoma epithelial cell)
whole cell lysate

Lane 2 : Jurkat (Human T cell leukemia T lymphocyte) whole cell
lysate

Lane 3 : SW480 (Human colorectal adenocarcinoma epithelial cell)
whole cell lysate

Lane 4 : K-562 (Human chronic myelogenous leukemia
lymphoblast) whole cell lysate

Lysates/proteins at 15 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/2000
dilution

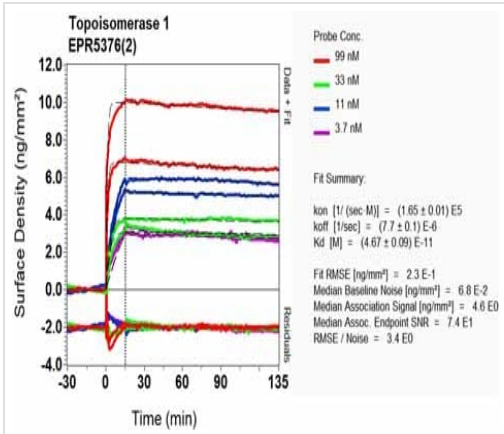
Predicted band size: 91 kDa

Observed band size: 91 kDa

Exposure time: 3 minutes

Blocking and diluting buffer: 5%NFDm/TBST.

We recommend to use 1%SDS Hot lysis prepare method.



BIOSENSOR-OAS Scanning - Anti-Topoisomerase I antibody
 [EPR5376(2)] (ab131166)

Equilibrium dissociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)

Why choose a recombinant antibody?

Research with confidence
 Consistent and reproducible results

Long-term and scalable supply
 Recombinant technology

Success from the first experiment
 Confirmed specificity

Ethical standards compliant
 Animal-free production

Anti-Topoisomerase I antibody [EPR5376(2)]
 (ab131166)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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