Best Tools for immunology Research

Topoisomerase IIα (ABT272) mouse mAb (Ready to Use)

Catalog No :	YM6914R
Reactivity :	Human;Mouse;Rat;
Applications :	IHC
Target :	Topo IIα
Fields :	>>Platinum drug resistance
Gene Name :	TOP2A TOP2
Protein Name :	Topoisomerase IIα
Human Gene Id :	7153
Human Swiss Prot No :	P11388
Immunogen :	Synthesized peptide derived from human Topoisomerase IIα AA range: 1400-1531
Specificity :	The antibody can specifically recognize human Topoisomerase IIα protein.
Formulation :	The prediluted ready-to-use antibody is diluted in phosphate buffer saline containing stabilizing protein and 0.05% Proclin 300
Source :	Mouse, Monoclonal/IgG1, kappa
Dilution :	Ready to use for IHC
Purification :	The antibody was affinity-purified from ascites by affinity-chromatography using specific immunogen.
Storage Stability :	2°C to 8°C/1 year
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 chromosome 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 pla

Function : catalytic activity:ATP-dependent breakage, passage and rejoining of double-stranded DNA.,enzyme regulation:Specifically inhibited by the intercalating agent amsacrine.,function:Control of topological states of DNA by transient breakage and subsequent rejoining of DNA strands. Topoisomerase II makes double-strand breaks.,miscellaneous:Eukaryotic topoisomerase I and II can relax both negative and positive supercoils, whereas prokaryotic enzymes relax only negative supercoils.,PTM:Phosphorylation has no effect on catalytic activity.,similarity:Belongs to the type II topoisomerase family.,subcellular location:Generally located in the nucleoplasm.,subunit:Homodimer. Interacts with COPS5.,

Subcellular Location : Nuclear

Expression : Expressed in the tonsil, spleen, lymph node, thymus, skin, pancreas, testis, colon, kidney, liver, brain and lung (PubMed:9155056). Also found in high-grade lymphomas, squamous cell lung tumors and seminomas (PubMed:9155056).

Tag : hot

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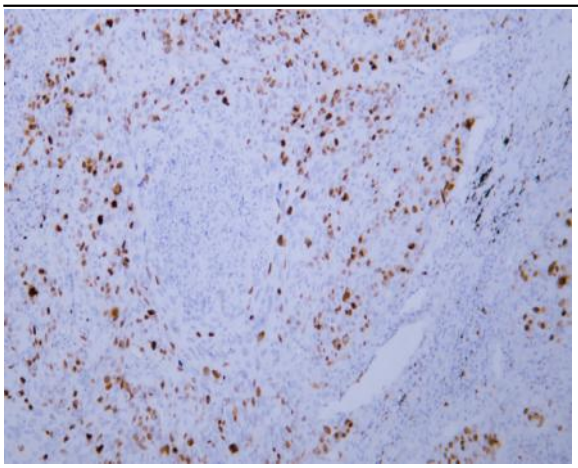
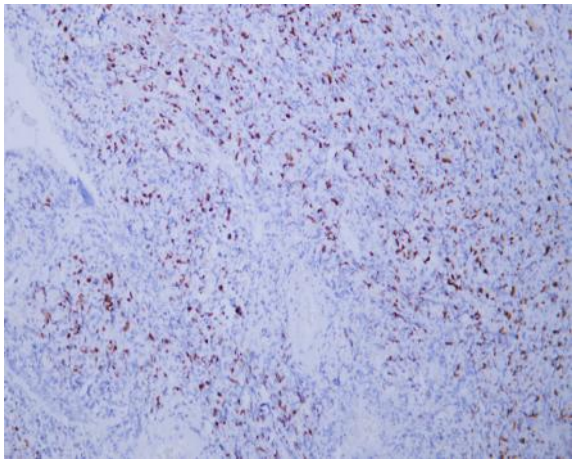
No4 : 1

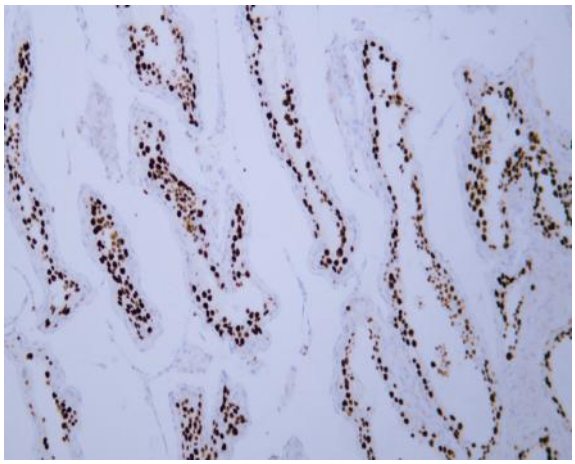
Products Images



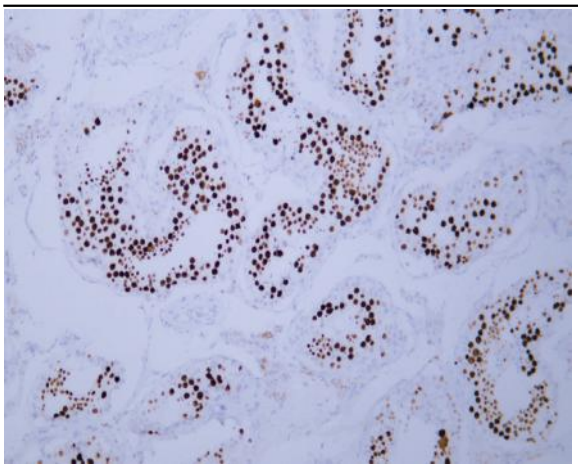
Human lung squamous cell carcinoma tissue was stained with Anti-Topoisomerase IIα (ABT272) Antibody



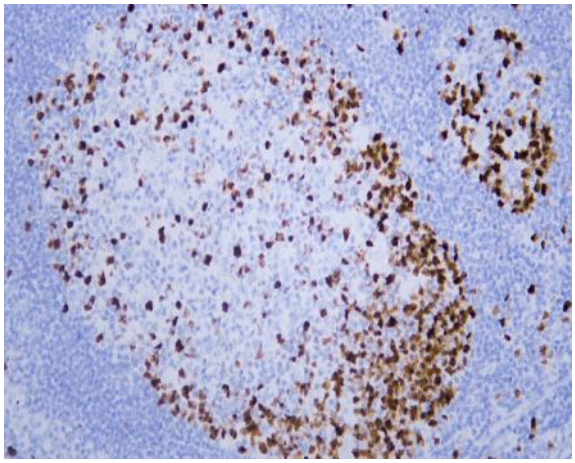
Human lymphoma tissue was stained with Anti-Topoisomerase IIα (ABT272) Antibody



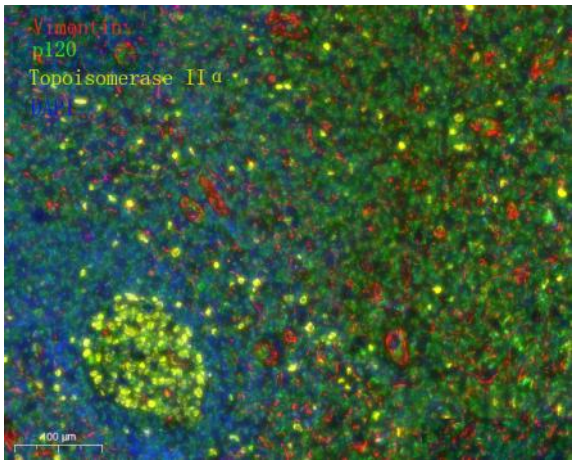
Human seminoma tissue was stained with Anti-Topoisomerase IIα (ABT272) Antibody



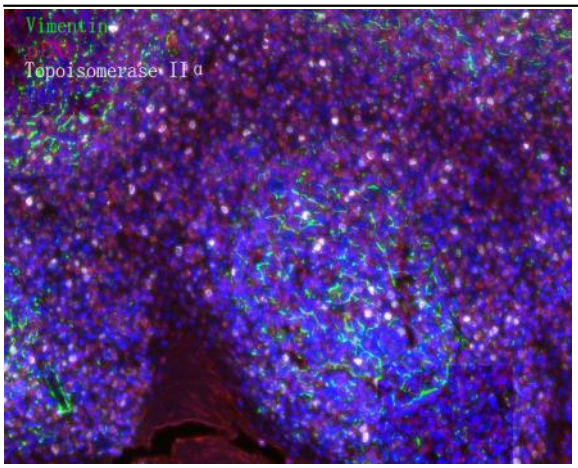
Human testis tissue was stained with Anti-Topoisomerase IIα (ABT272) Antibody



Human tonsil tissue was stained with Anti-Topoisomerase IIα (ABT272) Antibody



Fluorescence multiplex immunohistochemical analysis of Human tonsil tissue (formalin-fixed paraffin-embedded section). Merged staining of Anti-Vimentin (YM6918), Anti-p120 (YM6086), Anti-Topoisomerase IIα (YM6914). The immunostaining was performed on a Leica Biosystems BOND® MAX instrument with an Sextuple-Fluorescence kit (RS0039, Immunoway). The section was incubated in 3 rounds of staining; sequentially for Anti-Vimentin (YM6918 1:200), Anti-p120 (YM6086 1:200), Anti-Topoisomerase IIα (YM6914 1:200).; each using a separate fluorescent tyramide signal amplification system. EDTA based antigen retrieval (Leica Biosystems BOND® Epitope Retrieval Solution 2, pH 9.0, 20 minutes) was used in between rounds of tyramide signal amplification to remove the antibody from the previous round, to avoid any cross-reactivity. DAPI (dark blue) was used as a nuclear counter stain. Microscopy and pseudocoloring of individual dyes was performed using a Slideviewer Imaging System (3D histech).



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