abcam

ab224806

Anti-Wilms Tumor Protein antibody [SP321]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.6 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	SP321
Purification technique	Affinity purification Protein A/G
Concentration	0.033 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS by protein A/G.

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/400
Notes	Primary incubation for 30 minutes at 4°C.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rabbit, Pig
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/100
Notes	Primary incubation for 1 hour at room temperature.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Rabbit, Pig
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	1/100
Notes	Perform heat mediated antigen retrieval with EDTA buffer pH 8.0 before commencing with IHC staining protocol. Primary incubation for 10 minutes at room temperature.

Species	Rat
Dilution info	1/100
Notes	Perform heat mediated antigen retrieval with EDTA buffer pH 8.0 before commencing with IHC staining protocol. Primary incubation for 10 minutes at room temperature.

Species	Human
Dilution info	1/100
Notes	Perform heat mediated antigen retrieval with EDTA buffer pH 8.0 before commencing with IHC staining protocol. Primary incubation for 10 minutes at room temperature.

Predicted

Species	Rabbit, Pig
Dilution info	-
Notes	-

Target data

See full target information WT1

Function Transcription factor that plays an important role in cellular development and cell survival (PubMed:7862533). Recognizes and binds to the DNA sequence 5'-GCG(T/G)GGGCG-3' (PubMed:17716689, PubMed:25258363, PubMed:7862533). Regulates the expression of numerous target genes, including EPO. Plays an essential role for development of the urogenital system. It has a tumor suppressor as well as an oncogenic role in tumor formation. Function may be isoform-specific: isoforms lacking the KTS motif may act as transcription factors (PubMed:15520190). Isoforms containing the KTS motif may bind mRNA and play a role in mRNA metabolism or splicing (PubMed:16934801). Isoform 1 has lower affinity for DNA, and can bind RNA (PubMed:19123921).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The Wilms Tumor Protein commonly known as WT1 is a critical transcription factor implicated in several cellular processes. It is also identified by other names such as Wilms Tumor Suppressor and WT33. WT1 protein has a mass of approximately 52-54 kDa. It is broadly expressed in various tissues with high levels in the developing kidney gonads and certain mesothelial tissues. Its expression plays an important role in organ development and cellular differentiation.
Biological function summary	The WT1 protein regulates gene expression by binding to specific DNA sequences influencing cell growth and differentiation. WT1 acts as a part of larger protein complexes interacting with other transcription factors and co-regulators. It plays essential roles in the development of the urogenital system and in the maintenance of mesothelial cells. The WT1 protein is essential for normal kidney and gonadal development highlighting its significance in embryogenesis.
Pathways	WT1 integration involves multiple cellular signaling cascades. It is notably engaged in the Wnt and PI3K/AKT signaling pathways which are critical for cell proliferation and survival. In these pathways WT1 interaction with proteins such as β-catenin and PI3K subunits modulates cell fate decisions. This involvement in signaling networks exemplifies its importance in cellular homeostasis and response to environmental cues.
Associated diseases and disorders	WT1 mutations or dysregulation associate strongly with specific pathologies particularly Wilms tumor and acute myeloid leukemia (AML). In Wilms tumor WT1 acts as a tumor suppressor gene and its loss of function leads to tumorigenesis in the kidney. In AML aberrant WT1 expression affects normal hematopoiesis and is often linked to poor prognosis. Interaction with proteins like BSA in immunohistochemistry diagnostics highlights WT1’s significance as a biomarker for these diseases.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

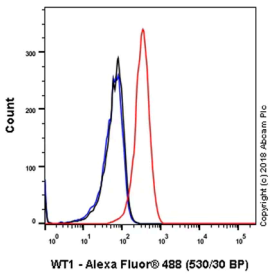
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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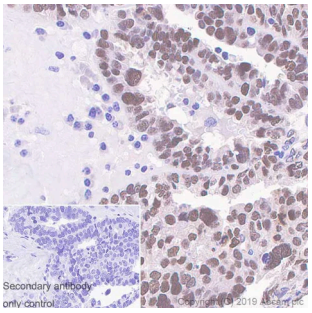
7 product images



Flow Cytometry (Intracellular) - Anti-Wilms Tumor Protein antibody [SP321] (ab224806)

Wilms Tumor Protein Flow Cytometry (Intracellular) staining using rabbit Anti-Wilms Tumor Protein antibody

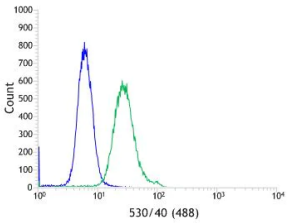
Flow Cytometry analysis of K-562 (human chronic myelogenous leukemia lymphoblast) cells labeling Wilms Tumor Protein with purified ab224806 at 1:20 dilution (12.6 µg/ml) - Red. Cells were fixed with 4% paraformaldehyde . A Goat anti rabbit IgG (Alexa Fluor® 488, ab150081) secondary antibody was used at 1:2000 dilution. Isotype control - Rabbit monoclonal IgG (ab172730) - Black. Unlabeled control - Blue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Wilms Tumor Protein antibody [SP321] (ab224806)

Wilms Tumor Protein Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Wilms Tumor Protein antibody

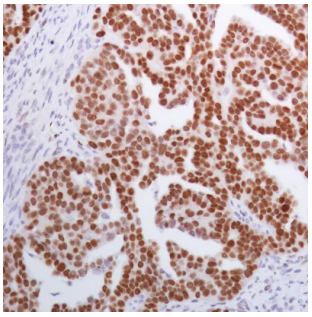
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human ovarian carcinoma tissue sections labeling Wilms Tumor Protein with ab224806 at 1/100 dilution (2.52 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Goat Anti-Rabbit & Mouse IgG (HRP) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Flow Cytometry (Intracellular) - Anti-Wilms Tumor Protein antibody [SP321] (ab224806)

Wilms Tumor Protein Flow Cytometry (Intracellular) staining using rabbit Anti-Wilms Tumor Protein antibody

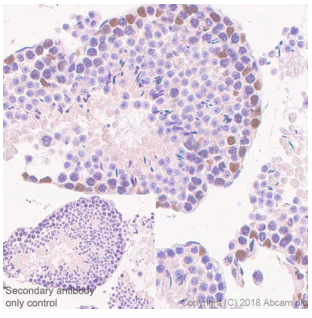
Flow cytometric analysis of K562 (human chronic myelogenous leukemia cell line from bone marrow) cell line labeling Wilms Tumor Protein with ab224806 at 1/400 dilution (green) compared with a negative control of rabbit IgG (blue).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Wilms Tumor Protein antibody [SP321] (ab224806)

Wilms Tumor Protein Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Wilms Tumor Protein antibody

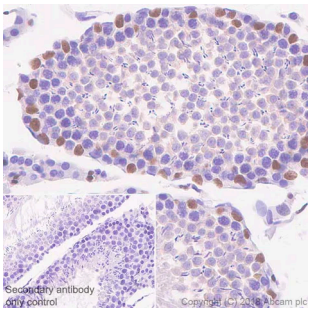
Formalin-fixed, paraffin-embedded human ovarian adenocarcinoma tissue stained for Wilms Tumor Protein using ab224806 at 1/100 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Wilms Tumor Protein antibody [SP321] (ab224806)

Wilms Tumor Protein Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Wilms Tumor Protein antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse testis tissue sections labeling Wilms Tumor Protein with ab224806 at 1/100 dilution (2.52 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Goat Anti-Rabbit & Mouse IgG (HRP) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Wilms Tumor Protein antibody [SP321] (ab224806)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat testis tissue sections labeling Wilms Tumor Protein with ab224806 at 1/100 dilution (2.52 µg/ml). Heat mediated antigen retrieval was performed Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins. Goat Anti-Rabbit & Mouse IgG (HRP) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-Wilms Tumor Protein antibody [SP321] (ab224806)

All lanes:
Western blot - Anti-Wilms Tumor Protein antibody [SP321] (ab224806) at 1/100 dilution

All lanes:
K562 (human chronic myelogenous leukemia cell line from bone marrow) cell lysate

Predicted band size: 49 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.