abcam

Product datasheet

Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] ab89901

重组 RabMAb

★★★★★ 42 Abreviews 208 References 16 图像

概述

产品名称 Anti-Wilms Tumor蛋白抗体[CAN-R9(IHC)-56-2]

描述 兔单克隆抗体[CAN-R9(IHC)-56-2] to Wilms Tumor蛋白

宿主 Rabbit

特异性 Expression levels of the target protein vary with sample type and some optimisation may be

required.

经测试应用 适用于: WB, IHC-P, Flow Cyt (Intra), ICC/IF

不适用于: ℙ

种属反应性 与反应: Mouse, Human

免疫原 Recombinant fragment (GST-tag) within Human Wilms Tumor Protein aa 50-250. The exact

sequence is proprietary. Database link: **P19544**

(Peptide available as ab208102)

阳性对照 WB: Human testis whole cell lysate. K562, Ramos, THP-1 and HeLa whole cell lysates. IHC-P:

Human kidney, Wilms tumor, ovarian serous adenocarcinoma and fetal tissues; Rat and mouse testis tissues. ICC/IF: K562 cells. Flow Cyt (intra): K562 cells. IHC-Fr: Human embryonic kidney

tissue.

常规说明 This product is a recombinant monoclonal antibody, which offers several advantages including:

- 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**.

性能

形式 Liquid

存放说明 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C.

1

Avoid freeze / thaw cycle.

存储溶液 pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: PBS, 40% Glycerol, 0.05% BSA

纯**度** Protein A purified

克隆 单克隆

克隆编号 CAN-R9(IHC)-56-2

同种型 IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab89901于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
WB	★ ★ ★ ☆ ☆ (4)	1/500 - 1/1000. Predicted molecular weight: 55 kDa. For unpurified use at 1/100.
IHC-P	★★★★★ (14)	1/300. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See IHC antigen retrieval protocols. For unpurified use at 1/30.
Flow Cyt (Intra)		1/50. For unpurified use at 1/3. <u>ab172730</u> - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.
ICC/IF	* * * * * (6)	1/50. For unpurified use at 1/5.

应用说明 Is unsuitable for IP.

靶标

功能 Transcription factor that plays an important role in cellular development and cell survival.

Regulates the expression of numerous target genes, including EPO. Plays an essential role for development of the urogenital system. Recognizes and binds to the DNA sequence 5'-CGCCCCGC-3'. 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. Isoforms containing the KTS motif may bind mRNA and play a role in mRNA metabolism or

splicing. Isoform 1 has lower affinity for DNA, and can bind RNA.

组织特异性 Expressed in the kidney and a subset of hematopoietic cells.

疾病相关

Defects in WT1 are the cause of Frasier syndrome (FS) [MIM:136680]. FS is characterized by a slowly progressing nephropathy leading to renal failure in adolescence or early adulthood, male pseudohermaphroditism, and no Wilms tumor. As for histological findings of the kidneys, focal

glomerular sclerosis is often observed. There is phenotypic overlap with Denys-Drash syndrome.

Inheritance is autosomal dominant.

Defects in WT1 are the cause of Wilms tumor 1 (WT1) [MIM:194070]. WT is an embryonal malignancy of the kidney that affects approximately 1 in 10'000 infants and young children. It occurs both in sporadic and hereditary forms.

Defects in WT1 are the cause of Denys-Drash syndrome (DDS) [MIM:194080]. DDS is a typical nephropathy characterized by diffuse mesangial sclerosis, genital abnormalities, and/or Wilms tumor. There is phenotypic overlap with WAGR syndrome and Frasier syndrome. Inheritance is autosomal dominant, but most cases are sporadic.

Defects in WT1 are the cause of nephrotic syndrome type 4 (NPHS4) [MIM:256370]. A renal disease characterized clinically by proteinuria, hypoalbuminemia, hyperlipidemia and edema. Kidney biopsies show non-specific histologic changes such as focal segmental glomerulosclerosis and diffuse mesangial proliferation. Some affected individuals have an inherited steroid-resistant form and progress to end-stage renal failure. Most patients with NPHS4 show diffuse mesangial sclerosis on renal biopsy, which is a pathologic entity characterized by mesangial matrix expansion with no mesangial hypercellularity, hypertrophy of the podocytes, vacuolized podocytes, thickened basement membranes, and diminished patency of the capillary lumen.

Defects in WT1 are a cause of Meacham syndrome (MEACHS) [MIM:608978]. Meacham syndrome is a rare sporadically occurring multiple malformation syndrome characterized by male pseudohermaphroditism with abnormal internal female genitalia comprising a uterus and double or septate vagina, complex congenital heart defect and diaphragmatic abnormalities.

Note=A chromosomal aberration involving WT1 may be a cause of desmoplastic small round cell tumor (DSRCT). Translocation t(11;22)(p13;q12) with EWSR1.

Belongs to the EGR C2H2-type zinc-finger protein family. Contains 4 C2H2-type zinc fingers.

Nucleus. Cytoplasm. Shuttles between nucleus and cytoplasm; Nucleus > nucleoplasm and Nucleus speckle.

序列相似性

细胞定位

图片

WT1 and PLZF m

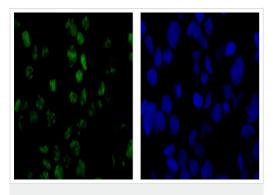
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

Adams et al PLoS Genet. 2018 Feb 20;14(2):e1007233. doi: 10.1371/journal.pgen.1007233. eCollection 2018 Feb. Fig S1. Reproduced under the Creative Commons license http://creativecommons.org/licenses/by/4.0/

Spermatogenic phenotypes of Rnf8;Scml2-dKO mice.

Immunostaining of testicular sections with WT1 (ab89901), a marker of Sertoli cells, and PLZF, a marker of undifferentiated spermatogonia.

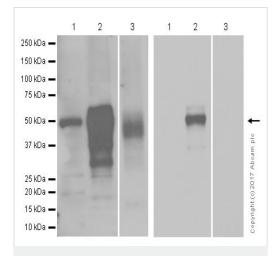
For preparation of testicular paraffin blocks, testes of mutants and littermate controls were fixed with 4% paraformaldehyde at 4°C overnight. Testes were then dehydrated and embedded in paraffin. For histological analyses, 6 µm-thick paraffin sections were deparaffinized and autoclaved in Target Retrieval Solution at 121°C for 20 min. The sections were blocked with for 10 min at room temperature, and then incubated with primary antibodies at 4°C overnight.



Immunocytochemistry/ Immunofluorescence - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

Immunocytochemsitry/Immunofluorescence analysis of K562 (Human chronic myelogenous leukemia cell line from bone marrow) cells labeling Wilms Tumor Protein (green) with purified ab89901 at 1/50.

Cells were fixed with 4% paraformaldehyde. An Alexa Fluor[®] 488-conjugated goat anti-rabbit lgG (1/200) was used as the secondary antibody. Counterstained with DAPI (blue).



Western blot - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

All lanes : Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901) at 1/500 dilution

Lane 1: Human testis whole cell lysate. at 15 µg

Lane 2: K562 (Human T cell leukemia T lymphocyte) whole cell

lysates at 4 µg

Lane 3: Mouse testis whole cell lysates at 15 µg

Secondary

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

dilution

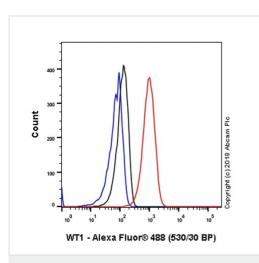
Predicted band size: 55 kDa
Observed band size: 55 kDa

Exposure time: Left image: 3 minutes

Right image: 15 seconds

This antibody shows low affinity in mouse sample.

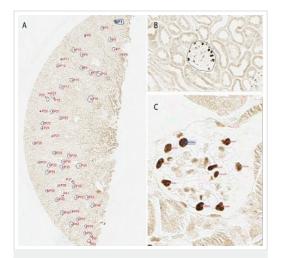
Blocking and diluting buffer: 5% NFDM/TBST



Flow Cytometry (Intracellular) - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

Intracellular Flow Cytometry analysis of K-562 (Human chronic myelogenous leukemia lymphoblast) cells labeling Wilms Tumor Protein with ab89901 at 1/200 dilution (0.1 μ g)/ Red.

Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A Goat anti rabbit lgG (Alexa Fluorr[®] 488, ab150077) at 1/2000 dilution was used as the secondary antibody. Rabbit monoclonal lgG (ab172730) / Black was used as the isotype control. Cells without incubation with primary antibody and secondary antibody / Blue was used as the unlabeled control.



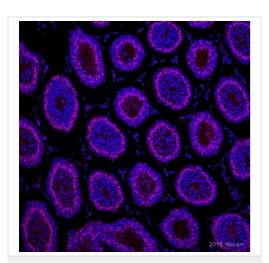
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

Verma et al PLoS One. 2018 Jun 20;13(6):e0198013. doi: 10.1371/journal.pone.0198013. eCollection 2018. Fig S1. Reproduced under the Creative Commons license

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Podocyte counting using WT1 staining.

Mouse kidney sections were stained with WT1 antibody ab89901 using immunohistochemistry. (**A**) Each glomeruli was identified and numbered using ImagePro premier imaging software. (**B**) A tracing was applied along the Bowman's capsule to assess the surface area of the glomerulus. (**C**) Each WT1 positive nucleus was identified and the nuclear size assessed.

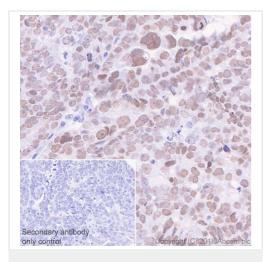


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

Image is courtesy of an anonymous Abreview.

Immunohistochemical analysis of fromaldehyde fixed, paraffin embedded rat testis tissue sections, labeling Wilms Tumor Protein using ab89901.

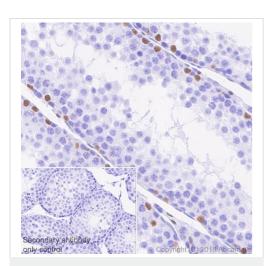
Heat mediated antigen retrival was performed using 10 mM sodium citrate and 0.05% Tween-20. Tissue sections were incubated with ab89901 at a 1/50 dilution for 12 hours at 4°C. The tissues were blocked with 10% serum for 30 minutes at 25°C. The secondary used was a Donkey $\text{CY3}^{\$}$ conjugate at a 1/200 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

ab89901 staining Wilms Tumor Protein in paraffin-embedded human ovarian serous adenocarcinoma tissue sections by Immunohistochemistry.

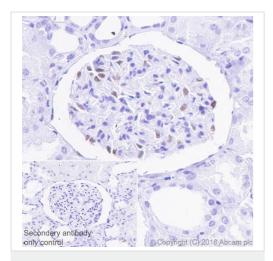
Antigen retrieval was by heat mediation using citrate buffer (pH 6.0) was performed. Samples were incubated with primary antibody at 1:500 dilution (0.49 μ g/ml). A ready to use Goat Anti-Rabbit lgG H&L (HRP) was used as the secondary antibody. Nuclear staining on human ovarian serous adenocarcinoma (PMID: 11939727) is observed.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

ab89901 staining Wilms Tumor Protein in paraffin-embedded mouse testis tissue sections by Immunohistochemistry.

Antigen retrieval was by heat mediation using citrate buffer (pH 6.0). Samples were incubated with primary antibody at 1:500 dilution (0.49 μ g/ml). A ready to use Goat Anti-Rabbit lgG H&L (HRP) was used as the secondary antibody. Nuclear staining on Sertoli cells in mouse testis (PMID: 21863216) is observed.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

ab89901 staining Wilms Tumor Protein in paraffin-embedded human kidney tissue sections by Immunohistochemistry.

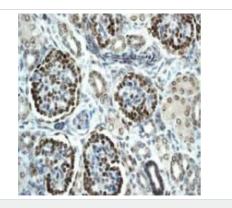
Antigen retrieval was by heat mediation using citrate buffer (pH 6.0). Samples were incubated with primary antibody at 1:500 dilution (0.49 μ g/ml). A ready to use Goat Anti-Rabbit lgG H&L (HRP) was used as the secondary antibody. Nuclear staining on human kidney glomerulus (PMID: 12898605) is observed.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human Wilms tumor tissue labeling Wilms Tumor Protein with unpurified ab89901 at 1/250.

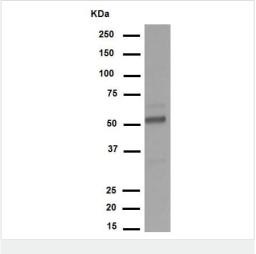
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



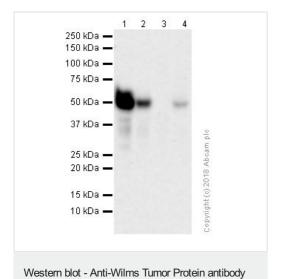
Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human fetal tissue labeling Wilms Tumor Protein with unpurified ab89901 at 1/250.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)



[CAN-R9(IHC)-56-2] (ab89901)

Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901) at 1/100 dilution (unpurified) + K562 (Human chronic myelogenous leukemia cell line from bone marrow) cell lysate at 10 µg

Secondary

Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 55 kDa **Observed band size:** 55 kDa

Blocking buffer and concentration: 5% NFDM/TBST.

All lanes : Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901) at 1/5000 dilution

Lane 1 : K-562 (Human chronic myelogenous leukemia lymphoblast). Whole cell lysates

Lane 2 : THP-1 (Human monocytic leukemia monocyte). Whole cell lysates

Lane 3: SH-SY5Y (Human neuroblastoma epithelial cell) Whole cell lysates

Lane 4 : HeLa (Human cervix adenocarcinoma epithelial cell) Whole cell lysates

Lysates/proteins at 20 µg per lane.

Secondary

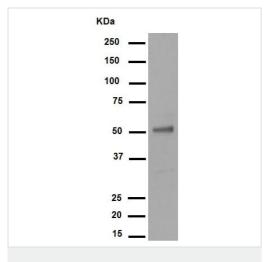
All lanes : Goat Anti-Rabbit lgG H&L (HRP) (<u>ab97051</u>) at 1/20000 dilution

Predicted band size: 55 kDa

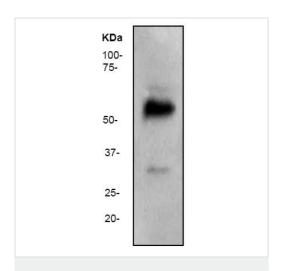
Exposure time: 3 minutes

WT1 expression varies in different cell lines.

Blocking and diluting buffer: 5% NFDM/TBST.



Western blot - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)



Western blot - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901) at 1/1000 dilution (purified) + K562 (Human chronic myelogenous leukemia cell line from bone marrow) cell lysate at 10 µg

Secondary

Peroxidase-conjugated goat anto-rabbit lgG (H+L) at 1/1000 dilution

Predicted band size: 55 kDa **Observed band size:** 55 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901) at 1/1000 dilution (unpurified) + Ramos (Human Burkitt's lymphoma cell line) cell lysate

Predicted band size: 55 kDa



56-2] (ab89901)

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