

Product datasheet

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

Recombinant RabMAb

★★★★★ 41 Abreviews 149 References 16 Images

Overview

Product name	Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2]
Description	Rabbit monoclonal [CAN-R9(IHC)-56-2] to Wilms Tumor Protein
Host species	Rabbit
Specificity	Expression levels of the target protein vary with sample type and some optimisation may be required.
Tested applications	Suitable for: WB, IHC-P, Flow Cyt (Intra), ICC/IF Unsuitable for: IP
Species reactivity	Reacts with: Mouse, Human
Immunogen	Recombinant fragment (GST-tag) within Human Wilms Tumor Protein aa 50-250. The exact sequence is proprietary. Database link: P19544 (Peptide available as ab208102)
Positive control	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.
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 . We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	CAN-R9(IHC)-56-2
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab89901 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	★★★★☆ (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. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (6)	1/50. For unpurified use at 1/5.

Application notes Is unsuitable for IP.

Target

Function	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'-CGCCCCCGC-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.
Tissue specificity	Expressed in the kidney and a subset of hematopoietic cells.
Involvement in disease	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.

Sequence similarities

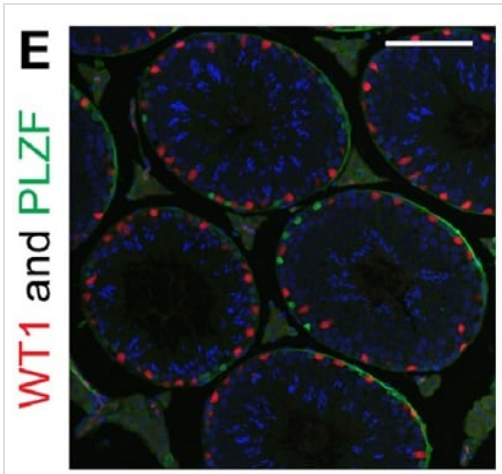
Belongs to the EGR C2H2-type zinc-finger protein family.

Contains 4 C2H2-type zinc fingers.

Cellular localization

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

Images



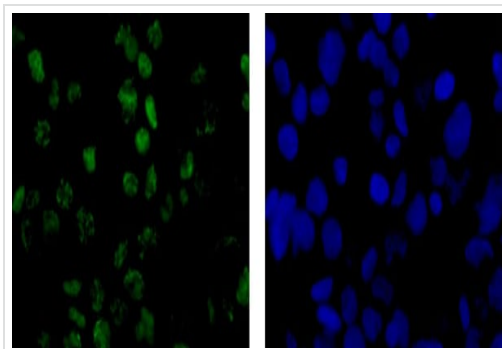
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Wilms Tumor Protein antibody [CAN-R9(IHC)-56-2] (ab89901)

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.

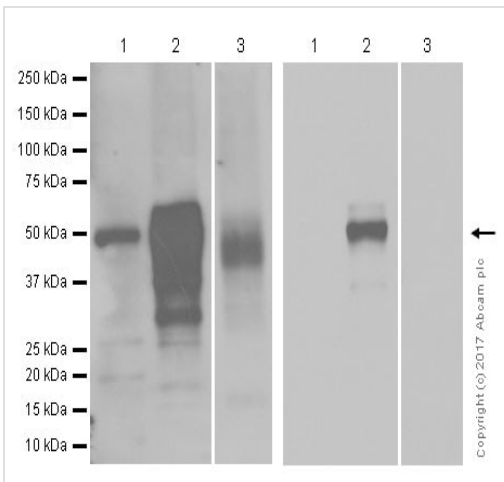
For preparation of testicular paraffin blocks, testes of mutants and littermate controls were fixed with 4% paraformaldehyde at 4°C overnight. Testes were then dehydrated and embedded in paraffin. For histological analyses, 6 µm-thick paraffin sections were deparaffinized and autoclaved in Target Retrieval 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)

Immunocytochemistry/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 IgG (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

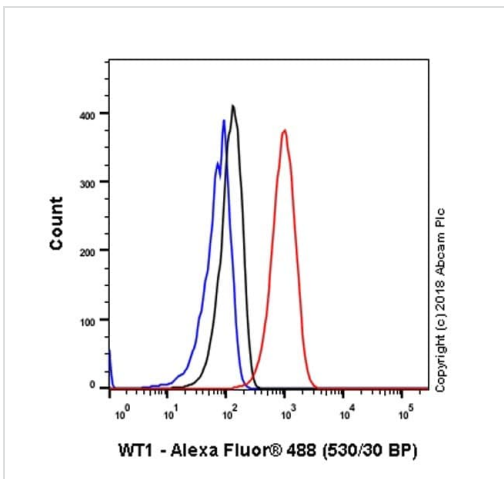
Observed band size: 55 kDa

Exposure time: Left image: 3 minutes

Right image: 15 seconds

This antibody shows low affinity in mouse sample.

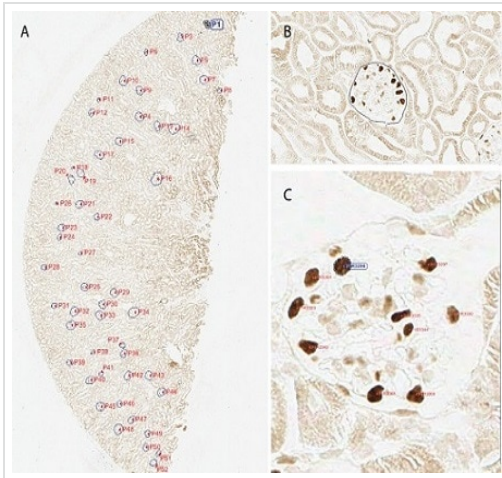
Blocking and diluting buffer: 5% NFD/MTBST



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 µg)/ Red.

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

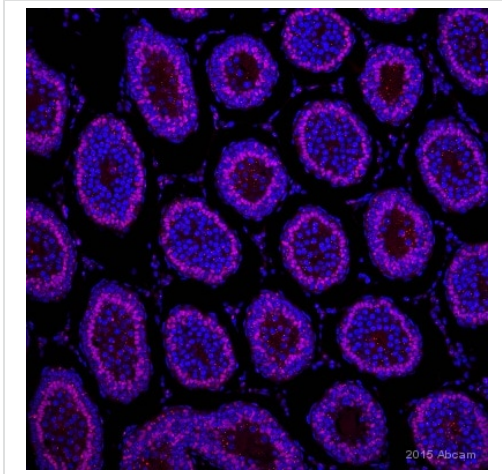


Podocyte counting using WT1 staining.

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 paraffin-embedded 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 <https://creativecommons.org/publicdomain/zero/1.0/>

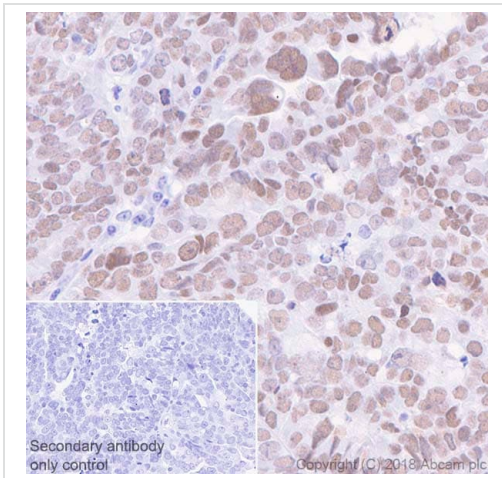


Immunohistochemical analysis of formaldehyde fixed, paraffin embedded rat testis tissue sections, labeling Wilms Tumor Protein using ab89901.

Heat mediated antigen retrieval 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 CY3[®] conjugate at a 1/200 dilution.

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

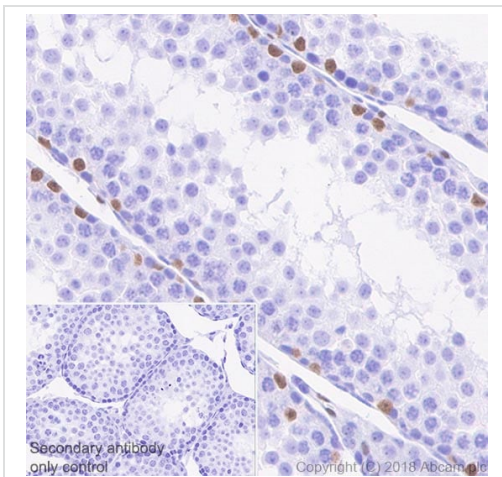
Image is courtesy of an anonymous Abreview.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded 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.

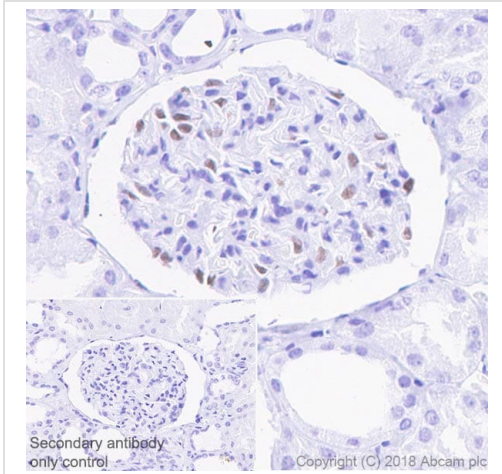
Antigen retrieval was by heat mediation using citrate buffer (pH 6.0) was performed. Samples were incubated with primary antibody at 1:500 dilution (0.49 µg/ml). A ready to use Goat Anti-Rabbit IgG H&L (HRP) was used as the secondary antibody. Nuclear staining on human ovarian serous adenocarcinoma (PMID: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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded 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.

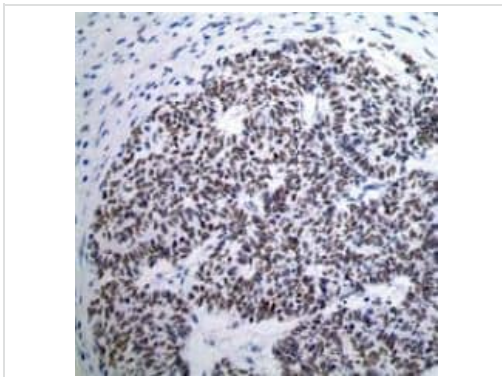
Antigen retrieval was by heat mediation using citrate buffer (pH 6.0). Samples were incubated with primary antibody at 1:500 dilution (0.49 µg/ml). A ready to use Goat Anti-Rabbit IgG H&L (HRP) was used as the secondary antibody. Nuclear staining on Sertoli cells in mouse testis (PMID: 21863216) is observed.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded 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.

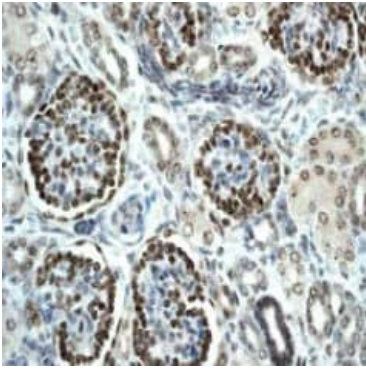
Antigen retrieval was by heat mediation using citrate buffer (pH 6.0). Samples were incubated with primary antibody at 1:500 dilution (0.49 µg/ml). A ready to use Goat Anti-Rabbit IgG H&L (HRP) was used as the secondary antibody. Nuclear staining on human kidney glomerulus (PMID: 12898605) is observed.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded 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.

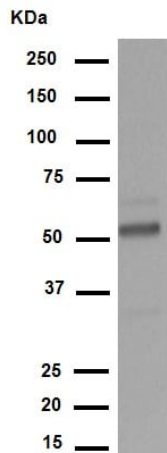
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded 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)

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 μ g

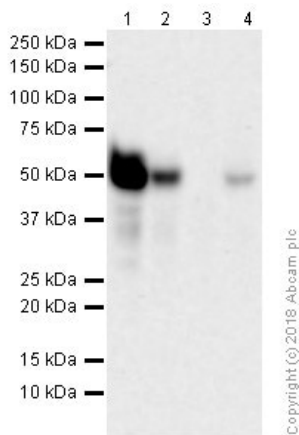
Secondary

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.



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 1/5000 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

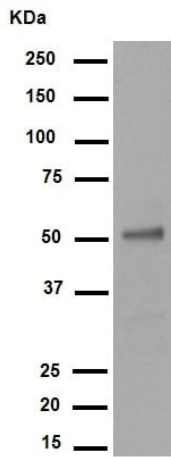
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 55 kDa

Exposure time: 3 minutes

WT1 expression varies in different cell lines.

Blocking and diluting buffer: 5% NFD/MTBST.



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

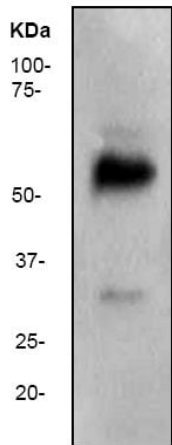
Secondary

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

Predicted band size: 55 kDa

Observed band size: 55 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.



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 (unpurified) + Ramos (Human Burkitt's lymphoma
cell line) cell lysate

Predicted band size: 55 kDa

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

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors