10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Goat Anti-Wilms tumor 1 / WT1 Antibody
Peptide-affinity purified goat antibody
Catalog # AF2157a

Specification

Goat Anti-Wilms tumor 1 / WT1 Antibody - Product Information

Application	**WB**
Primary Accession	P19544
Other Accession	NP_077744, 7490
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**49188**

Goat Anti-Wilms tumor 1 / WT1 Antibody - Additional Information

Gene ID 7490

Other Names
Wilms tumor protein, WT33, WT1

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-Wilms tumor 1 / WT1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-Wilms tumor 1 / WT1 Antibody - Protein Information

Name 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).

Cellular Location
Nucleus. Nucleus, nucleolus. Cytoplasm. Note=Isoforms lacking the KTS motif have a diffuse nuclear location (PubMed:15520190). Shuttles between nucleus and cytoplasm. {ECO:0000250, ECO:0000269|PubMed:15520190} [Isoform 4]: Nucleus, nucleoplasm

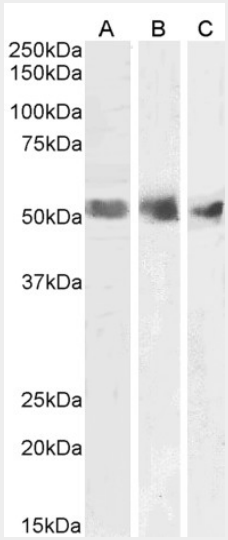
Tissue Location
Expressed in the kidney and a subset of hematopoietic cells

Goat Anti-Wilms tumor 1 / WT1 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-Wilms tumor 1 / WT1 Antibody - Images



Antibody (1µg/ml) staining of Human Spleen (A), Kidney (B) and Testis (C) lysates (35µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

Goat Anti-Wilms tumor 1 / WT1 Antibody - Background

This gene encodes a transcription factor that contains four zinc-finger motifs at the C-terminus and

a proline/glutamine-rich DNA-binding domain at the N-terminus. It has an essential role in the normal development of the urogenital system, and it is mutated in a small subset of patients with Wilm's tumors. Multiple transcript variants, resulting from alternative splicing at two coding exons, have been well characterized. There is also evidence for the use of non-AUG (CUG) translation initiation site upstream of, and in-frame with the first AUG, leading to additional isoforms. Authors of PMID:7926762 also provide evidence that WT1 mRNA undergoes RNA editing in human and rat, and that this process is tissue-restricted and developmentally regulated.

Goat Anti-Wilms tumor 1 / WT1 Antibody - References

Combined mutations of ASXL1, CBL, FLT3, IDH1, IDH2, JAK2, KRAS, NPM1, NRAS, RUNX1, TET2 and WT1 genes in myelodysplastic syndromes and acute myeloid leukemias. Rocquain J, et al. BMC Cancer, 2010 Aug 2. PMID 20678218.
No Prognostic Impact of the WT1 Gene Single Nucleotide Polymorphism rs16754 in Pediatric Acute Myeloid Leukemia. Hollink IH, et al. J Clin Oncol, 2010 Jul 19. PMID 20644087.
Structures of native and affinity-enhanced WT1 epitopes bound to HLA-A*0201: implications for WT1-based cancer therapeutics. Borbulevych OY, et al. Mol Immunol, 2010 Sep. PMID 20619457.
High frequency type I/II mutational shifts between diagnosis and relapse are associated with outcome in pediatric AML: implications for personalized medicine. Bachas C, et al. Blood, 2010 Jun 30. PMID 20592250.
Genotype-phenotype correlations in non-Finnish congenital nephrotic syndrome. Machuca E, et al. J Am Soc Nephrol, 2010 Jul. PMID 20507940.