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WT1 Antibody (Center E361)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11964c

Product Information

Application	WB, IHC-P, IF, FC, E
Primary Accession	P19544
Other Accession	P49952, O62651, P22561, P79958, B7ZSG3, NP_000369
Reactivity	Human, Rat, Mouse
Predicted	Mouse, Rat, Pig, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18841
Calculated MW	49188
Antigen Region	346-375

Additional Information

Gene ID	7490
Other Names	Wilms tumor protein, WT33, WT1
Target/Specificity	This WT1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 346-375 amino acids from the Central region of human WT1.
Dilution	WB~~1:2000 IHC-P~~1:100~500 IF~~1:10~50 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	WT1 Antibody (Center E361) is for research use only and not for use in diagnostic or therapeutic procedures.

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

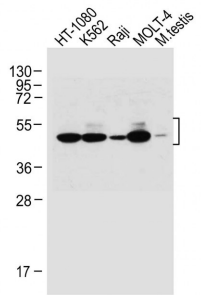
Background

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. This gene exhibits complex tissue-specific and polymorphic imprinting pattern, with biallelic, and monoallelic expression from the maternal and paternal alleles in different tissues. Multiple transcript variants have been described. In several variants, there is evidence for the use of a non-AUG (CUG) translation initiation site upstream of and in-frame with the first AUG. 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. [provided by RefSeq].

References

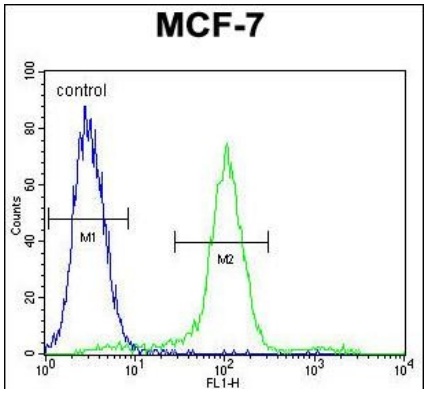
Sitaram, R.T., et al. Br. J. Cancer 103(8):1255-1262(2010)
Dohi, S., et al. Anticancer Res. 30(8):3187-3192(2010)
Rocquain, J., et al. BMC Cancer 10, 401 (2010) :
Wagner, K.D., et al. J. Cell. Sci. 116 (PT 9), 1653-1658 (2003) :
Mitsuya, K., et al. Hum. Mol. Genet. 6(13):2243-2246(1997)

Images

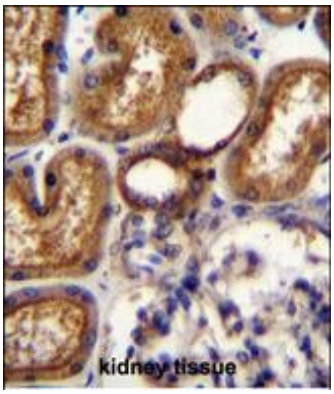


All lanes : Anti-WT1 Antibody (Center E361) at 1:1000 dilution Lane 1: HT-1080 whole cell lysate Lane 2: K562 whole cell lysate Lane 3: Raji whole cell lysate Lane 4: MOLT-4 whole cell lysate Lane 5: Mouse testis lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 49 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

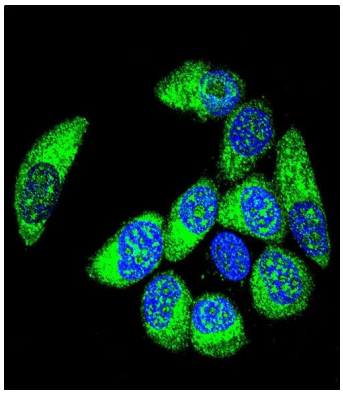
WT1 Antibody (Center E361) (Cat. #AP11964c) flow cytometric analysis of MCF-7 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary



antibodies were used for the analysis.



WT1 Antibody (Center E361) (Cat. #AP11964c)immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of WT1 Antibody (Center E361) for immunohistochemistry. Clinical relevance has not been evaluated.



Confocal immunofluorescent analysis of WT1 Antibody (Center E361)(Cat. #AP11964c) with MCF-7 cell followed by Alexa Fluor® 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).