

WT1 (N-20): sc-15421

BACKGROUND

Wilms' tumor (WT) is an embryonal malignancy of the kidney that affects one in 10,000 infants and, like retinoblastoma, is observed in both sporadic and inherited forms. The Wilms' tumor locus has been mapped at chromosome 11p13 as a tumor suppressor gene which encodes a DNA binding protein with four zinc fingers and a glutamine-proline rich amino terminus. The Wilms' tumor protein binds the DNA sequence GCGGGGCG, a recognition element common to the early growth response (Egr) family of Zn²⁺ finger transcriptional activators. However, in contrast to Egr transcription factors, WT1 behaves as a transcriptional repressor in transient transfection assays with synthetic promoter constructs.

REFERENCES

1. Matsunaga, E. 1981. Genetics of Wilms' tumor. *Hum. Genet.* 57: 231-246.
2. Weissman, B.E., et al. 1987. Introduction of a normal human chromosome 11 into a Wilms' tumor cell line controls its tumorigenic expression. *Science* 236: 175-180.

CHROMOSOMAL LOCATION

Genetic locus: WT1 (human) mapping to 11p13; Wt1 (mouse) mapping to 2 E3.

SOURCE

WT1 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of WT1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-15421 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

WT1 (N-20) is recommended for detection of WT1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

WT1 (N-20) is also recommended for detection of WT1 in additional species, including bovine, porcine and avian.

Suitable for use as control antibody for WT1 siRNA (h): sc-36846, WT1 siRNA (m): sc-36845, WT1 shRNA Plasmid (h): sc-36846-SH, WT1 shRNA Plasmid (m): sc-36845-SH, WT1 shRNA (h) Lentiviral Particles: sc-36846-V and WT1 shRNA (m) Lentiviral Particles: sc-36845-V.

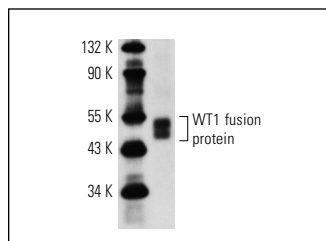
Molecular Weight of WT1: 52 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, MCF7 whole cell lysate: sc-2206 or MCF7 nuclear extract: sc-2149.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



WT1 (N-20): sc-15421. Western blot analysis of human recombinant WT1 fusion protein.

SELECT PRODUCT CITATIONS

1. Bugeon, L., et al. 2003. Inducible gene silencing in podocytes: a new tool for studying glomerular function. *J. Am. Soc. Nephrol.* 14: 786-791.
2. Suzuki, K., et al. 2007. Angiotensin II type 1 and type 2 receptors play opposite roles in regulating the barrier function of kidney glomerular capillary wall. *Am. J. Pathol.* 170: 1841-1853.
3. Chen, Q., et al. 2009. Suppression subtractive hybridization analysis of gene expression during late kidney development identifies the developmentally regulated gene rPEA3. *Nephron Exp. Nephrol.* 111: e103-e115.
4. Sachs, N., et al. 2012. Blood pressure influences end-stage renal disease of Cd151 knockout mice. *J. Clin. Invest.* 122: 348-358.
5. Zhang, L., et al. 2013. NFAT2 inhibitor ameliorates diabetic nephropathy and podocyte injury in db/db mice. *Br. J. Pharmacol.* 170: 426-439.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **WT1 (H-1): sc-393498** or **WT1 (F-6): sc-7385**, our highly recommended monoclonal alternatives to WT1 (N-20).