

WT1 (H-1): sc-393498

BACKGROUND

Wilms' tumor (WT) is an embryonal malignancy of the kidney that affects 1 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 (WT1) binds the DNA sequence GCGGGGGCG, 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 promotor constructs.

CHROMOSOMAL LOCATION

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

SOURCE

WT1 (H-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 123-164 within an internal region of WT1 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393498 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

WT1 (H-1) is recommended for detection of WT1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 (H-1) is also recommended for detection of WT1 in additional species, including bovine and porcine.

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, A-431 whole cell lysate: sc-2201 or Hep G2 cell lysate: sc-2227.

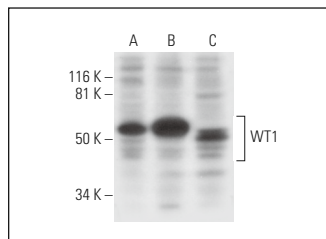
STORAGE

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

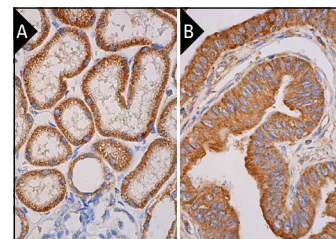
RESEARCH USE

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

DATA



WT1 (H-1): sc-393498. Western blot analysis of WT1 expression in K-562 (A), A-431 (B) and Hep G2 (C) whole cell lysates.



WT1 (H-1): sc-393498. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (A) and human fallopian tube tissue showing cytoplasmic staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Mo, H., et al. 2016. WT1 is involved in the Akt-JNK pathway dependent autophagy through directly regulating Gas1 expression in human osteosarcoma cells. *Biochem. Biophys. Res. Commun.* 478: 74-80.
- Tsujimoto, H., et al. 2020. A modular differentiation system maps multiple human kidney lineages from pluripotent stem cells. *Cell Rep.* 31: 107476.
- Nishad, R., et al. 2021. Growth hormone induces mitotic catastrophe of glomerular podocytes and contributes to proteinuria. *Cell Death Dis.* 12: 342.
- Wang, C., et al. 2022. Role of miRNA-671-5p in mediating Wnt/β-catenin-triggered podocyte injury. *Front. Pharmacol.* 12: 784489.
- Tagaya, M., et al. 2022. Inhibition of mitochondrial fission protects podocytes from albumin-induced cell damage in diabetic kidney disease. *Biochim. Biophys. Acta Mol. Basis Dis.* 1868: 166368.
- Mohás-Cseh, J., et al. 2022. Incorporation of oxidized phenylalanine derivatives into Insulin signaling relevant proteins may link oxidative stress to signaling conditions underlying chronic Insulin resistance. *Biomedicines* 10: 975.
- Miyake, Y., et al. 2022. Upregulation of OASIS/CREB3L1 in podocytes contributes to the disturbance of kidney homeostasis. *Commun. Biol.* 5: 734.
- Lee, D.Y., et al. 2022. Associations between local acidosis induced by renal LDHA and renal fibrosis and mitochondrial abnormalities in patients with diabetic kidney disease. *Transl. Res.* 249: 88-109.
- Araújo Galdino, O., et al. 2022. The nephroprotective action of *Passiflora edulis* in streptozotocin-induced diabetes. *Sci. Rep.* 12: 17546.

PROTOCOLS

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