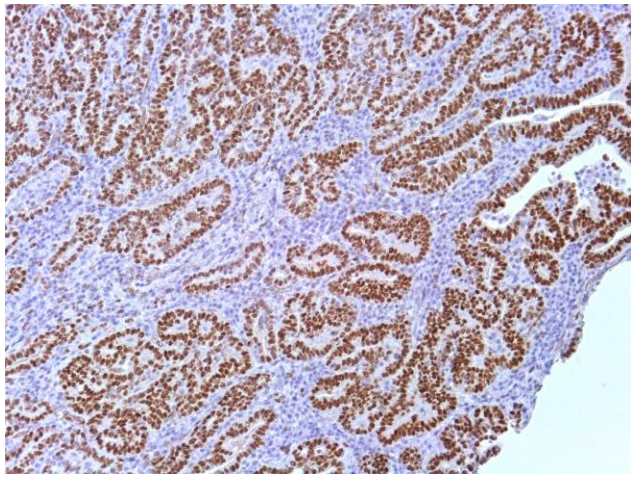
Avda. Conocimiento, 100
P.T. Ciencias de la Salud
18016 Granada
Fax: 958.27.14.34
Tlf.: 958.27.14.49
www.masterdiagnostica.com

Mouse anti-human WT-1 (Wilm´s Tumour Protein 1) Monoclonal Antibody (Clone 6F-H2)

References and presentations[1]

- **ready-to-use (ml)**
  MAD-005671QD-3
  MAD-005671QD-7
  MAD-005671QD-12
- **concentrated**
  MAD-025671Q - 1:50 recommended dilution

Composition: anti-human WT-1 mouse monoclonal antibody obtained from tissue culture supernatant prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide
Intended use IVD: Immunohistochemistry (IHC) on paraffin embedded tissues. Not tested on frozen tissues or Western-Blotting
Clone: 6F-H2
Immunogen: Truncated human WT1 protein corresponding to aa 1-181
Ig isotype: mouse IgG1 / k
Species reactivity: In vitro diagnostics in humans. Not tested in other species
Description and aplications:
WT-1 gene is located on chromosome 11p13 and is involved in the development of Wilm´s tumor (WT). WT is associated with mutations of WT1, a zinc-finger transcription factor that is essential for the development of the metanephric kidney and the urogenital system. The WT1 gene is normally expressed in fetal kidney and mesothelium, and its expression has been suggested as a marker for Wilms tumor and mesothelioma.
Anti-WT1 is useful in the diagnosis of malignant mesotheliomas (nuclei) while the nuclei of lung adenocarcinomas are not labeled with this product. However, cytoplasmic labeling of lung adenocarcinomas may be observed. Anti-WT1 labels 93% of serous ovarian carcinomas and 0% (nuclei) of mucinous carcinomas of the ovary and pancreato-biliary carcinomas. Anti-WT1 can also be utilized in the differential diagnosis of small round cell tumors as 100% of desmoplastic small round cell tumors and 70% of nephroblastomas (Wilm's tumor) are positive (nuclei) for this marker. Tumors such as Ewings sarcoma/PNET, neuroblastomas, rhabdomyosarcomas, and rhabdoid tumors are negative. Occasionally cytoplasmic labeling may be seen in these tumors, however.
IHC positive control: Fallopian tube, mesothelium, Wilm´s tumor or serous carcinoma of the ovary
Visualization: Nuclear



IHC recommended procedure:

- 4µm thick section should be taken on charged slides; dry overnight at 60º
- Deparaffinise, rehydrate and HIER (heat induced epitope retrieval) – boil tissue in the Pt Module using Master Diagnóstica EDTA buffer pH8[2] for 20 min at 95ºC. Upon completion rinse with 3-5 changes of distilled or deionised water followed by cooling at RT for 20 min

-Endogenous peroxidase block - Blocking for 10 minutes at room temperature using peroxidase solution (ref. MAD-021540Q-125)

[1] These references are for presentation in vials of Low Density Polyethylene (LDPE) dropper. In case the products are used in automated stainers, a special reference is assigned as follows:
- / L: Cylindrical screw-cap vials (QD-3 / L, QD-7 / L, QD-12 / L).
- / N: Polygonal screw-cap vials (QD-3 / N, QD-7 / N, QD-12 / N).
For different presentations (references / volumes) please contact the supplier.

[2] Ref: MAD-004072R/D

- Primary antibody: incubate for 10 minutes [The antibody dilution (when concentrated) and protocol may vary depending on the specimen preparation and specific application. Optimal conditions should be determined by the individual laboratory]
- For detection use Master Polymer Plus Detection System (HRP) (DAB included; ref. MAD-000237QK)
- Counterstaining with haematoxylin and final mounting of the slide

Storage and stability: up to 18 months; stored at 2-8ºC. Do not freeze.

Warnings and precautions:

1. Avoid contact of reagents with eyes and mucous membranes. If reagents come into contact with sensitive areas, wash with copious amounts of water.
2. This product is harmful if swallowed.
3. Consult local or state authorities with regard to recommended method of disposal.
4. Avoid microbial contamination of reagents.

SAFETY RECOMMENDATIONS

This product is intended for laboratory professional use only. The product is NOT intended to be used as a drug or for domestic purposes. The current version of the Safety Data Sheet for this product can be downloaded by searching the reference number at www.vitro.bio or can be requested at regulatory.md@vitro.bio.

BIBLIOGRAPHY

1. Scharnhorst V, van der Eb AJ, Jochemsen AG. WT1 proteins: functions in growth and differentiation. Gene; 273: 141–161. 2001.
2. Nakatsuka SI, Oji Y, Horiuchi T, Kanda T, Kitagawa M, Takeuchi T, Kawano K, Kuwae Y, Yamauchi A, Okumura M, Kitamura Y, Oka Y, Kawase I, Sugiyama H, Aozasa1 K. Immunohistochemical detection of WT1 protein in a variety of cancer cells. Modern Pathology 19: 804–814, 2006.
3. Foster MR, Johnson JE, Olson SJ, et al. Immunohistochemical analysis of nuclear vs cytoplasmic staining of WT1 in malignant mesotheliomas and primary pulmonary adenocarcinomas. Arch Pathol Lab Med; 125:1316–1320. 2001.
4. Carpentieri DF, Nichols K, Chou PM, Matthews M, Pawel B, Huff D. The expression of WT1 in the differentiation of rhabdomyosarcoma from other pediatric small round blue cell tumors. Mod Pathol. 2002 Oct;15(10):1080-6.
5. Goldstein NS, Uzieblo A. WT1 immunoreactivity in uterine papillary serous carcinomas is different from ovarian serous carcinomas. Am J Clin Pathol. 2002 Apr;117(4):541-5.
6. Hill DA, Pfeifer JD, Marley EF, Dehner LP, Humphrey PA, Zhu X, Swanson PE. WT1 staining reliably differentiates desmoplastic small round cell tumor from Ewing sarcoma/primitive neuroectodermal tumor. An immunohistochemical and molecular diagnostic study. Am J Clin Pathol. 2000 Sep;114(3):345-53.
7. Waldstrom M, Grove A. Immunohistochemical expression of Wilm's tumor gene protein in different histologic subtypes of ovarian carcinomas. Arch Pathol Lab Med. 2005 Jan;129(1):85-8.
8. Arnold MA, Schoenfield L, Limketkai BN, Arnold CA. Diagnostic pitfalls of differentiating desmoplastic small round cell tumor (DSRCT) from Wilms tumor (WT): overlapping morphologic and immunohistochemical features. Am J Surg Pathol 2014 Sep;38(9):1220-6