

**Datasheet for WM9-01-0005****WM9 Viable Cells****Overview**

|                      |                                               |
|----------------------|-----------------------------------------------|
| <b>Description:</b>  | WM9 Viable Cells - WM9-01-0005                |
| <b>Item No.:</b>     | WM9-01-0005                                   |
| <b>Size:</b>         | 5 x 1 million cells                           |
| <b>Applications:</b> | Cellular Assay, IF, IHC, Multiplex, Other, WB |
| <b>Origin:</b>       | Human                                         |

**Product Details**

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>        | WM9 is a human metastatic melanoma cell line that was established from a metastatic site (left axillary node) in a male patient. This cell line features the V600E (Val600Glu) mutation at codon 600 in the BRAF gene. This mutation causes constitutively active kinase activity and activation of MEK and ERK signaling pathway. This cell line also expresses PTEN hemizygous deletion, and is wild type for N-RAS, c-KIT, and CDK4. WM9 cells produce xenograft tumors when injected into immunocompromised mice. |
| <b>Synonyms:</b>          | Melanoma, patient derived tumor, tumor models, skin cancer, xenograft                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Species of Origin:</b> | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

**Target Details**

|                            |                                                                                                                                                                                                                                                                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity/Specificity:</b> | Cells are sterile, validated by short tandem repeat profiling, and are tested as negative for mycoplasma. It is recommended that cell lines are tested for mycoplasma contamination and short tandem repeat (STR) profiling every 10 passages or each time a frozen seed stock is made. See cell culture protocol for additional details. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">Cell Line EULA</a></li><li>• <a href="#">Melanoma Cell Culture Protocol</a></li></ul>                                                                                                                                                                                                 |

**Application Details**

|                                |                                                                     |
|--------------------------------|---------------------------------------------------------------------|
| <b>Suggested Applications:</b> | Cellular Assay, IF, IHC, Multiplex, Other, WB (Based on references) |
|--------------------------------|---------------------------------------------------------------------|

**Application Note:** The key applications of these cell lines include genetic studies, xenograft production, drug testing, and drug target discovery. These cell line models can be used in various biological assays, and for identifying critical target genes, and cell signaling pathways.

**Assay Dilutions:** All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

## Cell Line Data

|                        |                                                                                                                                                              |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cell Line:</b>      | Human Melanoma                                                                                                                                               |
| <b>Product Type:</b>   | Viable Cells                                                                                                                                                 |
| <b>Cell Viability:</b> | Yes                                                                                                                                                          |
| <b>Stage:</b>          | Metastasis                                                                                                                                                   |
| <b>BRAF:</b>           | V600E                                                                                                                                                        |
| <b>CDK4:</b>           | WT                                                                                                                                                           |
| <b>C-Kit:</b>          | WT                                                                                                                                                           |
| <b>N-RAS:</b>          | WT                                                                                                                                                           |
| <b>PTEN:</b>           | Hemizygous Deletion                                                                                                                                          |
| <b>Paired:</b>         | No                                                                                                                                                           |
| <b>Medium:</b>         | Tumor Specialized Media with 2% HI-FBS                                                                                                                       |
| <b>Sub-culture:</b>    | Cells should be maintained between 30 – 95% confluence in tumor specialized medium with 2% FBS; split cultures 1:5 every 7-14 days using 0.25% trypsin/EDTA. |
| <b>Incubation:</b>     | 36°C with 5% CO <sub>2</sub>                                                                                                                                 |

## Formulation

|                        |                                             |
|------------------------|---------------------------------------------|
| <b>Physical State:</b> | Frozen Cell Suspension                      |
| <b>Concentration:</b>  | 1.0 million cells/mL Count By Hemocytometer |
| <b>Buffer:</b>         | None                                        |
| <b>Preservative:</b>   | None                                        |
| <b>Stabilizer:</b>     | None                                        |

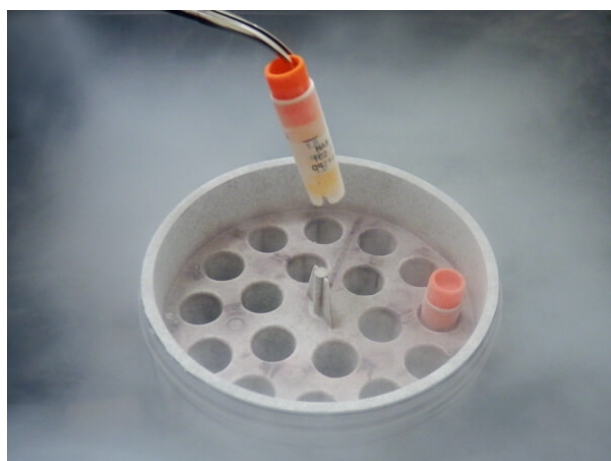
## Shipping & Handling

**Shipping Condition:** Dry Ice

**Storage Condition:** Cells are frozen with 90% FBS/10% DMSO solution at about  $5 \times 10^6$  cells/ml. Store vial in liquid nitrogen upon arrival.

**Expiration:** Expiration date is two (2) years from date of receipt.

## Images



### Flask

Human melanoma tumor cells with known gene mutations, disease stage, STR, and RPPA profiling

## References

- Simiczyjew A et al. Comparative Proteomic Analysis of the Secretome of Control and BRAF/MEK Inhibitor-Resistant Melanoma Cells. *J Proteome Res.* (2026)
- Kujawa T et al. Comprehensive transcriptomic characterization of two melanoma cell lines with acquired dual resistance to BRAF and MEK inhibitors. *Sci Rep.* (2026)
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- Wadzyska J et al. The impact of cellular elements of TME on melanoma biology and its sensitivity to EGFR and MET targeted therapy. *Biochim Biophys Acta Mol Cell Res.* (2023)
- Hippner M et al. Alpha-Enolase (ENO1) Correlates with Invasiveness of Cutaneous Melanoma—An In Vitro and a Clinical Study. *Diagnostics (Basel).* (2022)
- Kupczyk P et al. PARP1 as a Marker of an Aggressive Clinical Phenotype in Cutaneous Melanoma—A Clinical and an In Vitro Study. *Cells.* (2021)
- Malek N et al. The origin of the expressed retrotransposed gene ACTBL2 and its influence on human melanoma cells' motility and focal adhesion formation. *Sci Rep.* (2021)
- Makowiecka A et al. Thymosin  $\beta$ 4 regulates focal adhesion formation in human melanoma cells and affects their migration and invasion. *Front Cell Dev Biol.* (2019)
- Dratkiewicz E, et al. Characterization of Melanoma Cell Lines Resistant to Vemurafenib and Evaluation of Their Responsiveness to EGFR- and MET-Inhibitor Treatment. *Int J Mol Sci* (2019)
- Makowiecka A et al. Varying effects of EGF, HGF and TGF $\beta$  on formation of invadopodia and invasiveness of melanoma cell lines of different origin. *Eur J Histochem.* (2016)

## Disclaimer

No test method can provide total assurance that the hepatitis B virus, hepatitis C virus, human immunodeficiency virus, or any other infectious agents are absent. Thus, all blood products, including purified proteins derived from human blood sources, should be handled at Biosafety Level 2 as recommended by the CDC\NIH manual entitled Biosafety in Microbiological and Biomedical Laboratories for potentially infectious human serum, blood specimens or proteins derived from same. Source material for the human blood product supplied to your facility has been tested for the detection of HIV antibody, Hepatitis B surface antigen, antibody to Hepatitis C, HIV 1 antigen(s), antibody to HTLV - I/II, and syphilis by FDA guidelines. All units were found to be non-reactive/negative for these tests. All human blood source material is collected in FDA licensed centers and is tested with FDA approved test kits.

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