

**Datasheet for WM3670-01-0010****WM3670 Viable Cells****Overview**

|                      |                                        |
|----------------------|----------------------------------------|
| <b>Description:</b>  | WM3670 Viable Cells - WM3670-01-0010   |
| <b>Item No.:</b>     | WM3670-01-0010                         |
| <b>Size:</b>         | 10 x 1 million cells                   |
| <b>Applications:</b> | Cellular Assay, FC, IF, Microarray, WB |
| <b>Origin:</b>       | Human                                  |

**Product Details**

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>        | WM3670 is a metastatic human melanoma cell line with epithelial morphology. This cell line features the G469E mutation at codon 469 in the BRAF gene. The G469E mutation results in an amino acid substitution at position 469 in BRAF, from a glycine (G) to a glutamic acid (E). This mutation occurs within the highly conserved GXGXXG motif of the kinase domain. Most mutant BRAF proteins have increased kinase activity and are transforming in vitro. This cell line contains a G12D mutation at position 12 in the N-RAS gene. The G12D mutation results in an amino acid substitution at position 12 in N-RAS, from a glycine (G) to an aspartic acid (D). |
| <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="#">WM3670-01 SDS</a></li><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, FC, IF, Microarray, WB (Based on references)                                                                                                                                                                                                              |
| <b>Application Note:</b>       | 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. |
| <b>Assay Dilutions:</b>        | 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>Morphology:</b>     | epithelial                                                                                                                                                |
| <b>Cell Viability:</b> | Yes                                                                                                                                                       |
| <b>Stage:</b>          | Metastasis                                                                                                                                                |
| <b>BRAF:</b>           | G469E                                                                                                                                                     |
| <b>CDK4:</b>           | WT                                                                                                                                                        |
| <b>C-Kit:</b>          | WT                                                                                                                                                        |
| <b>N-RAS:</b>          | G12D                                                                                                                                                      |
| <b>PTEN:</b>           | WT                                                                                                                                                        |
| <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 1:3 every 7 days using 0.25% trypsin/EDTA. |
| <b>Incubation:</b>     | 36°C with 5% CO <sub>2</sub>                                                                                                                              |

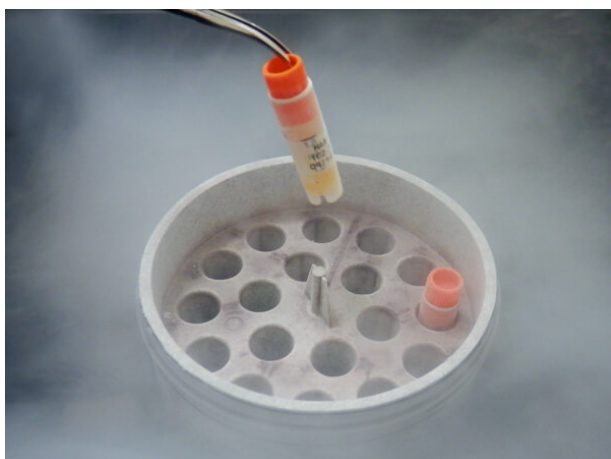
## Formulation

|                        |                                             |
|------------------------|---------------------------------------------|
| <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

|                            |                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Shipping Condition:</b> | Dry Ice                                                                                                                         |
| <b>Storage Condition:</b>  | Cells are frozen with 90% FBS/10% DMSO solution at about $10 \times 10^6$ cells/ml. Store vial in liquid nitrogen upon arrival. |
| <b>Expiration:</b>         | 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

- He S et al. Synergistic melanoma cell death mediated by inhibition of both MCL1 and BCL2 in high-risk tumors driven by NF1/PTEN loss. *Oncogene*. (2021)
- Kim N et al. Novel and potent small molecules against melanoma harboring BRAF class I/II/III mutants for overcoming drug resistance. *Int J Mol Sci*. (2021)
- Maertens O et al. Cancer Discov. *Cancer Discov*. (2019)

## 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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