Supplementary Table 3: Functional and potential biological significance of markers tested in Step 3.

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| Marker | Name | Function |   |   | Putative role in tumorigenesis |
| BMP3 | bone morphogenetic protein 3 | growth factor |  |  | tumor suppressor |  |  |
| CD1D | Antigen-presenting glycoprotein CD1d | Immune Response/Phagocytosis | up regulated in cancer |  |
| CDKN2A | cyclin-dependent kinase Inhibitor 2A | Signal Transduction/Cell Cycle |  | tumor suppressor |  |  |

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| DIO3 | iodothyronine deiodinase 3 | Thyroid metabolism |  |  | tumor suppressor |  |  |
| DOCK10 | dedicator of cytokinesis 10 | Signal Transduction/Cell Cycle |  | up regulated in cancer |  |
| ELMO1 | engulfment and cell motility 1 | Immune Response/Phagocytosis | up regulated in cancer |  |

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| ELOVL2 | Elongation of very long chain fatty acids protein 2 | lipid metabolism |  |  | up regulated in cancer |  |
| FER1L4 | fer-1 like family member 4, pseudogene | RNA Processing/Translational Regulation | down regulated in cancer |  |
| HUNK | hormonally up-regulated Neu-associated kinase | Signal Transduction/Cell Cycle |  | tumor suppressor |  |  |

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| LRRC4 | leucine rich repeat containing 4 | Coding/Uncharacterized  |  | tumor suppressor |  |  |

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| NDRG4 | N-myc downstream regulated gene 4 | Signal Transduction/Cell Cycle |  | tumor suppressor |  |  |
| SFMBT2 | Scm-like with four mbt domains 2 | Transcriptional Regulation |  | polycomb group repressor |  |
| ST8SIA1 | ST8 alpha-N-acetyl-neuraminide alpha-2,8-sialyltransferase 1 | carbohydrate metabolism |  | up regulated in cancer |  |
| TSPYL5 | Testis-specific Y-encoded-like protein 5 | Signal Transduction/Cell Cycle |  | oncogene |  |  |  |
| VAV3 | vav 3 guanine nucleotide exchange factor | Immune Response/Phagocytosis | oncogene |  |  |  |
| ZNF568 | zinc finger protein 568 | Transcriptional Regulation |  | oncogene and tumor suppressor functions |

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| ZNF569 | zinc finger protein 569 | Transcriptional Regulation |  | oncogene and tumor suppressor functions |

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| ZNF610 | zinc finger protein 610 | Transcriptional Regulation |  | oncogene and tumor suppressor functions |

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| ZNF671 | zinc finger protein 671 | Transcriptional Regulation |  | oncogene and tumor suppressor functions |

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| ZNF682 | zinc finger protein 682 | Transcriptional Regulation |  | oncogene and tumor suppressor functions |