

# PANEL MELANOMA, EXTENSIVE (CDKN2A, CDK4, MITF P.(GLU318LYS), BAP1, POT1, TERT PROMOTER)<sup>1</sup> DG-4.0.0 (6 GENES)

| <i>Gene</i> | <i>Twist X2 covered &gt;10x</i> | <i>Twist X2 covered &gt;20x</i> | <i>WGS covered &gt;10x</i> | <i>WGS covered &gt;20x</i> | <i>Associated Phenotype description and OMIM disease ID</i>  |
|-------------|---------------------------------|---------------------------------|----------------------------|----------------------------|--|
| BAP1        | 100.0%                          | 100.0%                          | 100.0%                     | 99.3%                      | Kury-Isidor syndrome, 619762;Tumor predisposition syndrome 1, 614327;{Uveal melanoma, susceptibility to, 2}, 606661                          |
| CDK4        | 100.0%                          | 100.0%                          | 100.0%                     | 99.6%                      | {Melanoma, cutaneous malignant, 3}, 609048   |
| CDKN2A      | 100.0%                          | 100.0%                          | 100.0%                     | 97.4%                      | {Melanoma and neural system tumor syndrome}, 155755;{Melanoma, cutaneous malignant, 2}, 155601;{Melanoma-pancreatic cancer syndrome}, 606719 |

|      |        |        |        |       |   |
|------|--------|--------|--------|-------|---|
| MITF | 99.9%  | 99.7%  | 100.0% | 98.5% | Waardenburg syndrome, type 2A, 193510;{Melanoma, cutaneous malignant, susceptibility to, 8}, 614456;Tietz albinism-deafness syndrome, 103500;COMMAD syndrome, 617306  |
| POT1 | 100.0% | 100.0% | 99.9%  | 98.3% | Tumor predisposition syndrome 3, 615848;?Cerebroretinal microangiopathy with calcifications and cysts 3, 620368;?Pulmonary fibrosis and/or bone marrow failure syndrome, telomere-related, 8, 620367  |
| TERT | 100.0% | 100.0% | 100.0% | 99.8% | Dyskeratosis congenita, autosomal dominant 2, 613989;Dyskeratosis congenita, autosomal recessive 4, 613989;Pulmonary fibrosis and/or bone marrow failure syndrome, telomere-related, 1, 614742;{Melanoma, cutaneous malignant, 9}, 615134;{Leukemia, acute myeloid}, 601626 |

Gene symbols used follow HGNC guidelines: Gray KA, Yates B, Seal RL, Wright MW, Bruford EA. *Nucleic Acids Res.* 2015 Jan 43(Database issue):D1079-85.

TWIST X2 Covered 10x describes the percentage of a gene's coding sequence that is covered at least 10x when analyzed by WES using TWIST X2 chemistry.

TWIST X2 Covered 20x describes the percentage of a gene's coding sequence that is covered at least 20x when analyzed by WES using TWIST X2 chemistry.

srWGS GRCh38 Covered 10x describes the percentage of a gene's coding sequence that is covered at least 10x when analyzed by WGS mapped against GRCh38.

*srWGS GRCh38 Covered 20x describes the percentage of a gene's coding sequence that is covered at least 20x when analyzed by WGS mapped against GRCh38. non-protein coding genes are covered, but as coverage statistics are based on protein coding regions, statistics could not be generated. OMIM release used for OMIM disease identifiers and descriptions : March 17th, 2023. This list is accurate for panel version DG 4.0.0*

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