## PANEL MELANOMA, BASIC (CDKN2A, CDK4, MITF P.(GLU318LYS)<sup>1</sup> DG-4.1.0 (3 GENES)

Gene	Twist X2 covered 10x	Twist X2 covered 20x	srWGS covered >10x	srWGS covered >15x	srWGS covered >20x	Associated Phenotype description and OMIM disease ID
CDK4	100%	100%	100%	99.9%	98.9%	{Melanoma, cutaneous malignant, 3}, 609048
CDKN2A	100%	100%	100%	99.7%	97.5%	{Melanoma and neural system tumor syndrome}, 155755;{Melanoma, cutaneous malignant, 2}, 155601;{Melanoma- pancreatic cancer syndrome}, 606719
MITF	100%	100%	100%	100%	99.4%	Waardenburg syndrome, type 2A, 193510;{Melanoma, cutaneous malignant, susceptibility to, 8}, 614456;Tietz albinism- deafness syndrome, 103500;COMMAD syndrome, 617306

Gene symbols used follow HGCN 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 mapped against GRCh38.

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 mapped against GRCh38.

srWGS 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 covered 15x describes the percentage of a gene's coding sequence that is covered at least 15x when analyzed by WGS mapped against GRCh38. srWGS 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: November 25th, 2024.

This list is accurate for panel version DG 4.1.0

Ad 1. Blank field signifies a gene without a current OMIM association Ad 2. OMIM phenotype descriptions between {} signify risk factors