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## **MELANOMA PROBES** MULTICOLOR DNA FISH PROBES

Melanoma is responsible for more deaths worldwide than any other type of skin cancer. Up until about 10 years ago, a diagnosis came with a median survival time of 6-10 months. At the time, dacarbazine was the only chemo drug FDA-approved for treatment of the disease, so became standard of care despite its dismal response rate (only 2% of patients achieved long-term complete response) and response duration (a mere 5-6 months).<sup>1</sup>

The development of immunotherapy as a novel treatment option proved revolutionary in the fight against melanoma. Since the release of the first checkpoint inhibitors, melanoma has now become curable in 50% of metastatic patients.<sup>2</sup> However, early detection is crucial – 98.4% of stage 1 versus just 22.4% of stage 4 patients are still alive 5 years post-diagnosis.<sup>1</sup> Therefore, thorough diagnostic screening is a critical step in cases where melanoma is suspected.

Empire Genomics' melanoma FISH panel is made up of probes that detect gene aberrations frequently found in melanoma. Recently, our probes were used to characterize variations in acral melanoma according to body location, and to cytogenetically define a unique subset of pediatric neoplasms that can develop into melanoma.<sup>3,4</sup>

GENES	LOCATION	DYE COLOR	SKU
BCL2 Break-Apart	18q21.3		BCL2BA-20-ORGR
CCND1 Break-Apart	11q13.3		CCND1BA-20-GROR
CDK4	12q14	•	CDK4-20-OR
Chromosome 6 Control	6p11-q11		CHR06-10-GR
Chromosome 9 Control	9q21.3		CHR09-10-GR
KIT	4q12	•	KIT-20-OR
MAGI2	7q21		MAGI-20-OR
MYB Break-Apart	6q23.3		MYB-20-GROR
MYC Break-Apart	8q24.21		MYC-20-ORGR
P16	9p21.3	•	P16-20-OR
PAX3 Break-Apart	2q36.1		PAX3BA-20-ORGR
PD-L1	9p24.1		PDL1-20-OR
PD-L1/CON9	9p24.1/9q21.33		PDL1-Con9-20-ORGR
PREX2 Break-Apart	8q13.2		PREX2BA-20-ORGR
RREB1	6p24		RREB1-20-OR
TERT	5p15		TERT-20-OR

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