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Test Update 775

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Test Name Cytogenetics, Chromosomal Microarray Analysis, Tumor
Update Type New Tests
CPT Code 81277

NEW TEST

Cancer Cytogenomic Array Formalin-Fixed Paraffin Embedded (FFPE) Tissue

Order Code: CGAPT

CPT Code: 81277

Effective September 9, 2021, MLabs will replace Chromosomal Microarray Analysis, Tumor (MDPAT) with Cancer Cytogenomic Array Formalin-Fixed Paraffin Embedded (FFPE) Tissue (CGAPT).

Collection Instructions: Tissue rolls: If examination of a representative H&E tissue section reveals that more than 50% of the cells are tumor cells, 10 FFPE tissue rolls cut at 10-micron thickness in a clean 1.5 mcL tube are required. If the surface of the tissue section is above 0.5 cm2, 5 tissue rolls at 10-micron thickness are sufficient. For cases with very small amounts of tissue, it may be necessary to cut more than ten 10-micron sections to ensure the presence of sufficient material from which to extract DNA. Avoid exhausting the FFPE block whenever possible. One serial H&E is also obtained to assess specimen adequacy. Cases in which the percentage of tumor cells is less than 30% or the tumor area is less than 1mm2 are not suitable for CGH.

Unstained slides: If examination of a representative H&E tissue section reveals that less than 50% of the cells are tumor cells, 10 FFPE serial unstained sections at 10-microns thickness on regular slides and one H&E slide are required. The tumor area is marked by a certified pathologist to ensure a minimum of 30% tumor purity in the sample. While 10-micron thick sections are preferred, 4-micron sections are acceptable. The tissue in the marked area is micro-dissected from the slide with a sterile scalpel and placed in a 1.5 mL tube. Cases in which the percentage of tumor cells is less than 30% in the area to be micro-dissected or the tumor area is less than 1mm2 are not suitable for CGH.

DNA yield: Samples with total DNA yield and concentration above 80ng and 12 ng/mcL, respectively, are acceptable. Samples with total DNA yield less than 80 ng and concentration less than 12 ng/mcL will be rejected due to the minimum DNA sample input and volume requirements of CGH. For those samples with total DNA yield below 80 ng but with concentration less than 12 ng/mcL, a concentration step is included in the protocol.

Analytic Time: 3 weeks, set up M-F

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