TEST CHANGE

DNA Cell Cycle Analysis - Ploidy and S-Phase

0095155, DNA MISC

Specimen Requirements:	
Patient Preparation:	
Collect:	Peripheral~~Tumor tissue, body fluid, peripheral~~ blood in lavender (EDTA, pink (K2EDTA),~~Green (Sodium~~ or green (sodium or lithium heparin). Bone~~Lithium Heparin), bone~~ marrow in green (sodium or lithium heparin).~~Green (Sodium or Lithium Heparin), OR urine/bladder washings.~~
Specimen Preparation:	Tissue: Paraffin -embedded tissue block enriched with tumor ~~OR Body Fluid: Transport: 100 mL body fluid. (Min: 10 mL)~~ OR Peripheral Blood: Transport 5 mL ~~whole blood.~~ (Min: 1 mL) with Wright's stained slide OR bone marrow~~ OR Bone Marrow~~: Transport 2 mL ~~bone marrow.~~ (Min: 1 mL) with Wright's stained slide~~Specimens with low mononuclear cell counts may require more volume. OR Urine/Bladder Washings: Centrifuge and remove supernatant. The cell pellet should then be re-suspended in a cell culture media such as Hank's Balanced Salt Solution or RPMI~~.
Transport Temperature:	Tissue (paraffin embedded), peripheral blood with Wright's stained slide,~~Peripheral Blood~~ or bone marrow with Wright's stained slide~~Bone Marrow~~: Refrigerated ~~Body Fluid~~ or room temperature.~~Urine/Bladder Washings: Refrigerated~~
Unacceptable Conditions:	Products of c~~C~~onception. No tumor tissue remaining on block. Specimens fixed in Bouin's solution (picric acid), mercuric chloride containing fixatives (e.g., B5, Zenker's solution) or ethanol-based fixatives containing ethylene glycol, acetic acid, or zinc chloride. Clotted or hemolyzed whole blood or bone marrow. Decalcified specimens.
Remarks:	Provide the clinical information (pathology report) and specimen source.~~ Peripheral Blood, Bone Marrow or Urine/Bladder Washings: Provide a Wright stained slide with specimens.~~ If multiple specimens (blocks or slides) are sent to ARUP, they must be accompanied by one of the following: an order comment indicating that the ARUP pathologist should choose the specimen most appropriate for testing (e.g., "Choose best block"), or individual orders for each sample submitted. A Pathologist Block Selection Fee (ARUP test code 3002076) will be added to orders that utilize the first option. If multiple specimens are sent to ARUP without a request for pathologist block/slide selection or individual orders, they will

	be held until clarification is provided.
Stability:	Tissue (paraffin embedded): Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Unacceptable ~~Body Fluid or Urine/Bladder Washings: Ambient: Unacceptable; Refrigerated: 24 hours; Frozen: Unacceptable~~ Peripheral blood with Wright's stained slide or bone marrow with Wright's stained slide~~Blood or Bone Marrow~~: Ambient: 48 hours; Refrigerated: 48 hours; Frozen: Unacceptable
Methodology:	Quantitative Flow Cytometry
Performed:	~~Sun,~~ Tue, Thu
Reported:	3-9 days
Note:	This test is suitable for all tumor tissue specimens (including prostate, colon, and breast) except p~~P~~roducts of c~~C~~onception. For p~~P~~roducts of c~~C~~onception testing, please refer to DNA Content/Cell Cycle Analysis, Hydatidiform Mole (ARUP test code 2006178). A thin section of each tissue submitted is stained with H & E to verify the presence of tumor. The DNA content of each tumor is classified as diploid, near-diploid, tetraploid, aneuploid, hypertetraploid, or hypodiploid. The DNA index is the ratio of tumor G0-G1 cells to normal G0-G1 cells. The tumor-specific S-phase is used when possible. An average histogram S-phase is used for diploid, near-diploid and hypodiploid tumors where the tumor and host S-phases cannot be separated. An average histogram S-phase is also used when the percentage of aneuploid cells in the histogram is low (less than 25 percent).
CPT Codes:	88182
New York DOH Approval Status:	Specimens from New York clients will be sent out to a New York DOH approved laboratory, if possible.

Interpretive Data:

The diagnostic and prognostic importance of tumor DNA content depends on the tumor type and source of tissue. Interpretative information, if available for the tumor type, is included with the DNA histogram.

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA-certified laboratory and is intended for clinical purposes.

Reference Interval:

Report components include: DNA content, S-phase percent , and copy of histogram.