fluorescent microscopic examination of the stained nuclear suspension may provide additional documentation of cellular aggregates.

FLO.31020 DNA Content Linearity **Phase II**

Criteria are established for determining acceptable linearity for DNA content measurement using cells or particles of known relative fluorescence.

FLO.31050 Staining Methodology **Phase II**

The staining and analytical processes described in the procedure manual are based upon established methodology (reference cited).

NOTE: Many different variables need to be controlled to ensure proper stoichiometry of dye binding to DNA. Therefore, it is essential that procedures adopted by a laboratory are based on published work.

FLO.31100 Specimen Treatment **Phase II**

Specimen treatment with nucleic acid dye includes treatment with RNAse if the dye is not specific for DNA.

NOTE: Certain dyes used to stain fixed cells, (eg, ethidium and propidium iodide) bind to RNA. Prior treatment with RNAse eliminates artifactual broadening of the DNA content distributions that would result from fluorescence of complexes of the dye with RNA.

REFERENCES
1) Shapiro HA. Practical flow cytometry. New York, NY: Alan R. Liss, 1985

FLO.31150 Neoplasm DNA Analysis Criteria **Phase I**

The laboratory uses defined criteria for the type of neoplasms acceptable for DNA analysis.

NOTE: The laboratory must show evidence that it restricts analysis to those neoplasms for which the literature supports significant independent prognostic significance for DNA ploidy and/or S-phase analysis.

REFERENCES
1) DNA cytometry consensus conference. *Cytometry.* 1993;14:471-500
2) Henson D, *et al*. College of American Pathologists Conference XXVI on clinical relevance of prognostic markers in solid tumors. Summary. *Arch Pathol Lab Med.* 1995;119:1109-1112

FLO.31200 Histogram Acceptability Criteria **Phase II**

The laboratory uses defined criteria for acceptability of histograms for interpretation.

FLO.31300 Nucleic Acid-Specific Dye Concentration **Phase II**

The concentration of nucleic acid-specific dye has been determined to be a saturating concentration.

NOTE: Standard techniques use an excess concentration of fluorochrome since concentrations below saturation will make the cells appear hypoploid.

REFERENCES
1) Shapiro HA. Practical flow cytometry. New York, NY: Alan R. Liss, 1985