

Next generation sequencing based multi-gene mutational screen for acute myeloid leukemia using miseq: applicability for diagnostics and disease monitoring

Validation

archival AML/MDS samples

Assay performance
sensitivity
specificity
reproducibility

MiSeq

customized TruSeq
cancer panel
(54 genes)

complete
concordance

Ion Torrent - PGM

AmpliSeq cancer panel
(46 genes)

Classical sequencing platforms

Sanger sequencing
pyrosequencing
fragment analysis

MiSeq for AML/MDS diagnostics

Clinical utility

low sample
requirement

high-multiplexed
screening of
genes & samples

high detection
sensitivity

Advantages

multiple platform
consolidation

multiple markers
screening

clonal
heterogeneity
residual disease