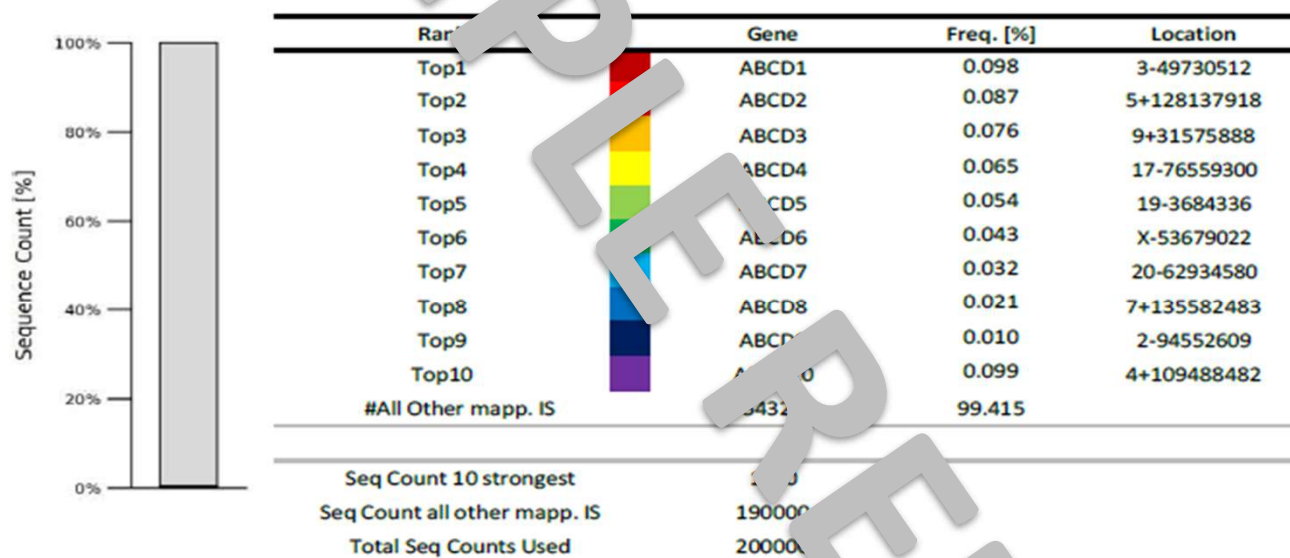


Patient Name	LastName, FirstName	Treatment Date	15-Dec-2019	ProtaGene ID	CLIA20010101BGW_01
MRN	999999999	Collection Date	16-Dec-2019	Visit #	1
DOB	01-1-1999	Received Date	01-Jan-2020	Treatment	Treatment
Gender	M	Analysis Date	01-Feb-2020	Facility Sample ID	19-12-000001
Diagnosis	Dx	Approval Date	15-Feb-2020	Facility Name	Facility Name
Referring Physician	Referring, MD	Sample Type	Blood		

INTEGRATION SITE (IS) ANALYSIS SUMMARY REPORT

Test Summary: IS analysis as a safety evaluation to monitor for potential oncogenesis determined IS locations in DNA of the provided sample and their relative abundance as clonality measurement by S-EPTS/LM-PCR, next-generation sequencing, and bioinformatics analysis.

Result: IS profile is presented as relative contributions of the ten most abundant IS.



Caption: Gene name corresponds to RefSeq identification of genes located next to (or at) the IS. Location contains the chromosome number, sequence orientation (plus or minus strand), and locus of the IS (based on human reference genome hg19).

Comments: While increasing IS contribution may be associated with an increased risk for a malignancy, it will not *a priori* result in a malignancy. Therefore, regular IS testing and timely trigger of enhanced monitoring is essential mitigation measure.

Note that sequencing reads mapping to multiple locations in the reference genome have been removed from analysis. Frequency of the high contributing IS were not substantially changed. IS test results should not be the sole basis for patient management. Results should be interpreted in consultation with a qualified licensed health care practitioner.

Approval: Result was reviewed and approved by the Laboratory Director, Pertti T.K. Toivola, PhD.

Disclaimer: Integration Site Analysis (ISA) test has not been reviewed, approved, or cleared by the FDA, nor is such approval required. Test results are for clinical purposes and should not be considered investigational or for research. The characteristics of the ISA test have been determined and verified by ProtaGene, a CLIA registered laboratory approved to perform high complexity tests.