Seraseq® gDNA TMB Reference Panel Mix

0710-2463

This Product Datasheet provides further details around the TMB assessment protocol method as well as whole exome sequencing (WES) data for the Seraseq gDNA TMB Reference Panel Mix.

TMB MATERIALS

- Human cell lines; tumor-like and normal-matched set
- 100% tumor-like gDNA + WT gDNA (matched)

TMB MEASUREMENTS BY WHOLE EXOME SEQUENCING (WES)

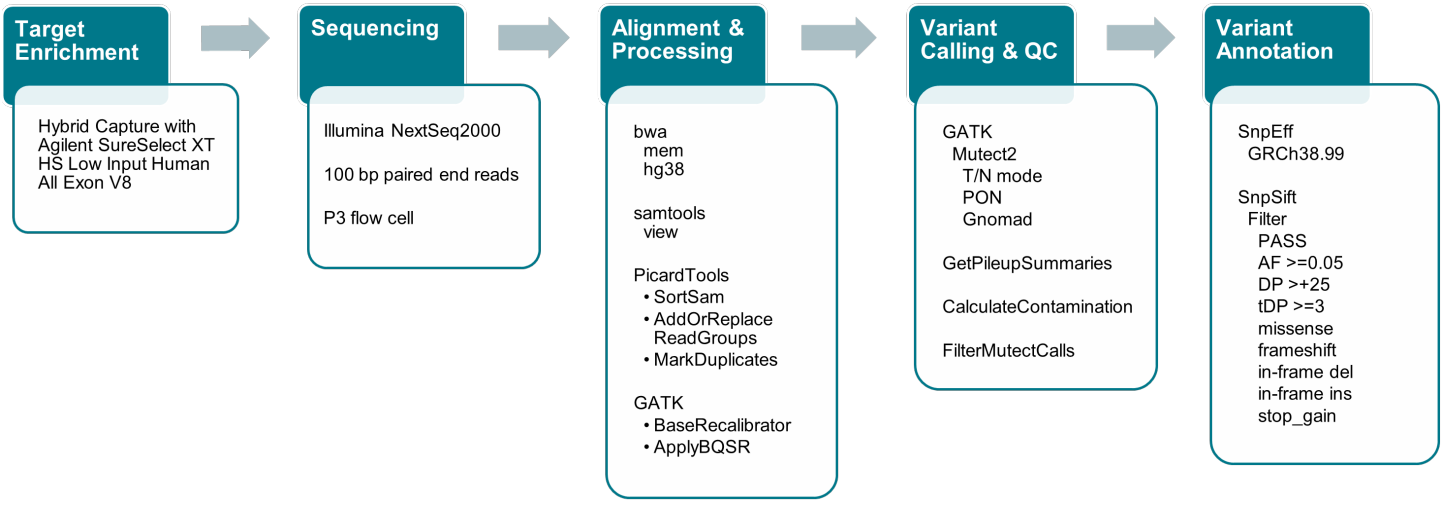
- Library preparation
  - Agilent SureSelect XT Low Input Human All Exon V8
  - Target region = 35.1 Mb
  - Coding region relevant for TMB = 32.4 Mb

- Whole Exome Sequencing
  - Illumina NextSeq2000
  - Average read depth >200x (tumor) and >100x (normal)

- TMB Analysis Pipeline (based on FoCR's TMB Harmonization Project recommendations[1])

$$\text{TMB Score} = \frac{\text{\# of non-synonymous TMB mutations}}{32.4}$$

WES WORKFLOW



[1] Vega, et al. Aligning tumor mutational burden (TMB) quantification across diagnostic platforms: phase II of the Friends of Cancer Research TMB Harmonization Project. Ann Oncol. 2021 Dec;32(12):1626-1636.

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WHOLE EXOME SEQUENCING DATA

- Sequencing metrics

TMB Score	Total Reads	Mapped Reads	Deduplicated Reads	On-Target Reads	On-Target (%)	Exome Coverage	Coding Coverage
Normal	497,304,593	495,354,779	264,439,379	186,401,458	70	393	391
Score 5	528,210,472	526,082,926	263,198,507	186,432,564	71	394	392
Score 10	516,396,359	514,352,896	254,141,079	178,592,088	70	376	374
Score 30	473,780,927	472,040,986	252,082,315	177,666,493	70	375	373
Score 50	486,147,838	484,218,454	245,054,459	170,383,272	70	360	357

- Illumina NextSeq2000 with 81.39% Pass Filter and 94.69% Average Q30
- TMB Scores generated using above parameters and filters

Seraseq gDNA TMB Reference Panel Mix	TMB Score*
Seraseq gDNA TMB Ref Mix, Normal	Baseline
Seraseq gDNA TMB Ref Mix, Score 5	3.30
Seraseq gDNA TMB Ref Mix, Score 10	9.94
Seraseq gDNA TMB Ref Mix, Score 30	28.91
Seraseq gDNA TMB Ref Mix, Score 50	51.87

*Whole Exome Sequencing (WES) generated TMB scores

- TMB variant lists (WES data) available by contacting us at CDx-CustomerService@lgcgroup.com.

CONTACT US

For additional information on these TMB reference materials, please visit our dedicated product page at https://www.seracare.com/tumor-mutational-burden/, or call us at **+1 800.676.1881**.

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