



NOVASEQ X PLUS CONCORDANCE DATA WHOLE GENOME SEQUENCING

RTG Results

The RTG (Real Time Genomics) tool results refer to the variants' comparison between the NovaSeq X Plus sequencing platform and the Genome in a Bottle Consortium (GIAB) dataset.

By comparing the NA12878 (human reference genome sample) variant results from the NovaSeq X Plus platform to the GIAB dataset, we can assess the accuracy, sensitivity, and specificity of the NovaSeq X Plus platform in detecting genetic variants.

RTG Results (NovaSeq X Plus vs GIAB)

Type	True-pos	False-pos	False-neg	Precision	Sensitivity	F-measure
Total	3673849	20811	48239	0.9944	0.9870	0.9907
SNP	3223105	18055	31655	0.9944	0.9903	0.9923
InDel	447134	7266	20194	0.984	0.9568	0.9702

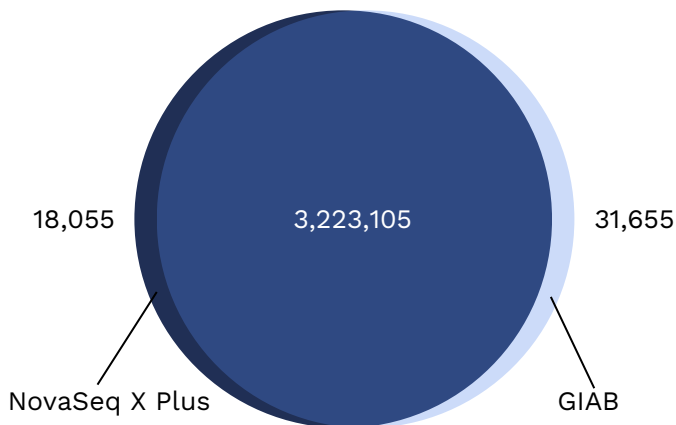
RTG Results (NovaSeq 6000 vs GIAB)

Type	True-pos	False-pos	False-neg	Precision	Sensitivity	F-measure
Total	3670148	54361	51940	0.9854	0.9860	0.9857
SNP	3227976	19150	26784	0.9941	0.9918	0.9929
InDel	438480	39958	28848	0.9165	0.9383	0.9272

Venn Diagrams of SNPs Between NovaSeq X Plus and NovaSeq 6000

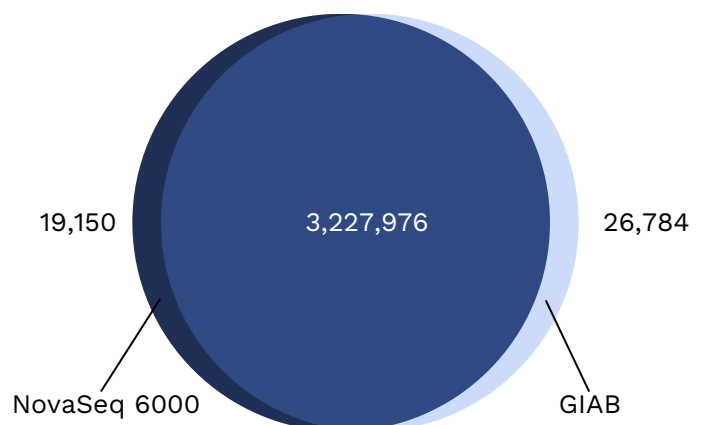
NA12878 — compared with VCF in GIAB (Gap in a bottle, NIST), 30x down sampled sequencing data.

NovaSeq X Plus vs GIAB (NA12878)



~99% detected mutations in the NovaSeq X Plus were shared with GIAB

NovaSeq 6000 vs GIAB (NA12878)



~99% detected mutations in the NovaSeq 6000 were shared with GIAB

PCR-Free and TruSeq Nano Data

PCR Free Data
Comparable to NovaSeq 6000

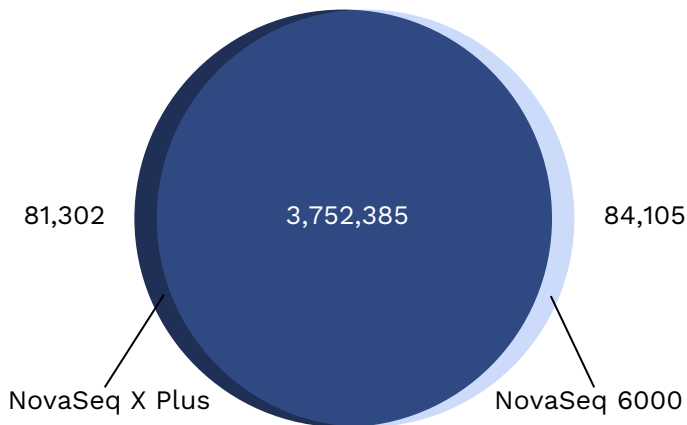
	Type	True-pos	False-pos	False-neg	Precision	Sensitivity	F-measure
PCR-Free Kit NovaSeq X Plus vs NovaSeq 6000	Total	4520644	147508	155394	0.968	0.967	0.968
	SNP	3752385	81302	84105	0.979	0.978	0.978
	InDel	769894	63813	69665	0.923	0.917	0.920

TruSeq Nano Data
Comparable to NovaSeq 6000

	Type	True-pos	False-pos	False-neg	Precision	Sensitivity	F-measure
TruSeq Nano Kit NovaSeq X Plus vs NovaSeq 6000	Total	4467770	182588	177130	0.961	0.962	0.961
	SNP	3765675	82913	72724	0.978	0.981	0.980
	InDel	710893	105385	95615	0.871	0.881	0.876

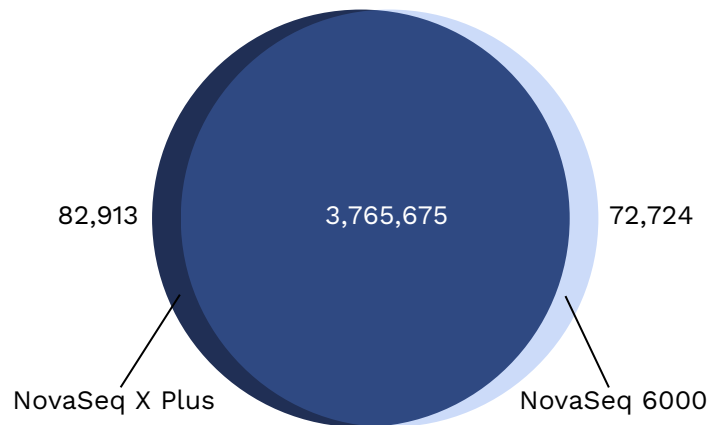
Venn Diagram of SNPs Between NovaSeq X Plus and NovaSeq 6000

NovaSeq X Plus vs NovaSeq 6000
(PCR-Free)



~98% detected mutations in the NovaSeq X Plus were shared with NovaSeq 6000

NovaSeq X Plus vs NovaSeq 6000
(Nano)



~98% detected mutations in the NovaSeq X Plus were shared with NovaSeq 6000