

Table E3: Comparison of causal genetic variant detection between conventional methods and the customized GSA

Item	Conventional Methods(Numbers)		GSA technology (Numbers)
Method	Previously detected variants	Known variants that could be investigated by GSA	Replicated variants by GSA
SNV	71 *	37	30
CNV	4	4	3
Method	Newly found variants replicated by Sanger sequencing	Newly found variants that could be investigated by Sanger sequencing	Newly found variants by GSA
SNV	38	41	46**
CNV	none	none	2

* 34 out of 71 variants did not include when the GSA was designed.

** 5 out of 46 variants could not be investigated (lack of DNA).

GSA: Global Screening Array, CNV: copy number variants, SNV: single nucleotide variants