

Table S3 Comparison with existing implementations of the GATK best practices, features.

	Alignment	Variant-Calling	Annotation	AWS/EC2 cloud tested	Google Cloud	Joint Variant Calling Capabilities	Configured for GATK 3
GenomeKey + COSMOS	BWA	GATK HaplotypeCaller	ANNOVAR	Yes	Yes	Yes	Yes
STORMseq	BWA	GATKlite Haplotype Caller	VEP	Yes	No	Yes	No
Rainbow	Bowtie	SOAPsnp	None	Yes	No	No	No
Mercury	BWA	AtlasSNP + AtlasIndel	Cassandra	No	No	No	No
HugeSEQ	BWA	GATK Unified Genotyper+ Samtools	None	Yes	No	No	No