

Genomics on AWS

Accelerate genomics discoveries

Genomics research is data intensive.
Enable more genomic innovation with your data on AWS:



Speed time to insights

Powerful compute and the industry's most comprehensive machine learning options ensure scientists can execute workloads fast and with control.



Cost-effective data processing without sacrificing performance

Tackle complex genomics projects, without having to pay for idle infrastructure or scramble to increase cores during spiky workloads with pay-as-you-go pricing and virtually unlimited compute capacity.



Enable frictionless collaboration

The global footprint of AWS Regions and network match the global nature of science, with security and access controls that allow genomics researchers to manage data sharing. AWS Open Data Program houses openly available data, with 40+ open Genomics datasets providing research and clinical communities with a single documented source of truth.



Why AWS for Genomics

100 Gbps of networking throughput	2x more Availability Zones than any other cloud provider	7x fewer downtime hours than the next largest cloud provider	90% potential compute savings compared to On-Demand prices	100X acceleration with Amazon EC2 F1 Instances compared to CPUs	175+ fully featured services from data centers globally
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Genomics workloads

7 key use cases where AWS helps researchers & clinicians benefit from cloud technology

Data transfer and storage

Take advantage of high-throughput data ingestion, cost-effective storage options, secure access, and efficient searching to propel genomics research forward

Workflow automation for secondary analysis

Scalable, cost-effective data analysis and simplified orchestration for running and automating parallelizable workflows

Data aggregation and governance

Harmonize multi-omic datasets and govern robust data access controls and permissions across global infrastructure

Interpretation and deep learning for tertiary analysis

Accelerate analysis of big genomics data by leveraging machine learning and high-performance computing

Clinical applications

Decrease time to results while adhering to the most stringent patient privacy regulations

Leverage open datasets

The AWS Open Data Sponsorship Program (ODSP) helps democratize data access by making it readily available, providing the research community with a single documented source of truth

Optimize costs

Realize cost-saving opportunities across the data lifecycle—from storage to interpretation

Learn more about Genomics with AWS



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