OmicsNest Bioinformatics Platform

All-in-One Bioinformatics Solutions for Omics

OmicsNest Bioinformatics Platform is specifically designed for multi-omics analysis, offering a one-stop solution that integrates sequencing task management with bioinformatics analysis. By deeply interfacing with the ZLIMS/PaaZ laboratory management system and seamlessly connecting to MGI sequencing devices, the platform supports end-to-end software, including metagenomics, whole genome sequencing, and targeted sequencing. Compatible with both long-read and short-read sequencing technologies, OmicsNest delivers efficient and stable analysis services, catering to diverse application scenarios worldwide.

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Three Major Features

Smart Connectivity

Through seamless integration of data analysis with MGI sequencers and lab automation systems, we deliver a fully connected bioinformatics workflow — from 'sample-in' to 'report-out'.

Universal Analysis Engine

- Compatible with both long-read and short-read data analysis
- Flexible licensing options: buy-out, annual subscription, or bundled with library prep kits - freely customizable analysis applications.
- One-click access to professional multi-omics analysis pipelines including metagenomics, whole genome sequencing, and targeted genome analysis.

Premium Performance

- Lightweight Architecture Design - Enhanced operational stability
- Containerized Software Packaging - Enables rapid client-side deployment
- Multi-threaded Parallel Processing - Boosts analysis efficiency

Configuration Requirements

CPU Threads	Memory	Hard Drive	Model
128	256 GB	28 TB (RAID5) + 2.5 TB	Standard

Performance

Bioinformatics software	Sequencing length	Data volume / Data yield	OmicsNest Bioinformatics Platform
ARGs_OAP	PE150	34M	35min
ATOPlex MES	PE100	5M	22min1s
FIS	SE400	1.2M(2samples)	13min
FIS.SNP	SE50	1.4M(2samples)	2min
FluTrack/FluTrack	PE100	5M	37min23s
metargetCOVID	PE150	2.5M	11min54s
MGAP	SE100	1.5M	4min33s
MGA	Long read	50X	19min2s
MTB-Explorer/ MTB-Explorer_ATOPlex	PE150	3M	32min47s
MTB-Explorer_WGS	PE150	10M	12min
PFLV	SE50	25M(4samples)	25min
MetaSIS	PE150	50K(6samples)	3min42s
ATOPlexMMRS	PE150	2.5M	6min14s
HIV-GenomePro	PE150	2M	30min55s
HIV-LongSeq	Long read	10K(each amplicon)	36min57s
VIS	PE150	10M	4min9s
VIRUS	PE150	2.5M	15min20s

Ordering Information

Cat. No	Product Name
900-001195-00	OmicsNest Bioinformatics Platform
900-001196-00	OmicsNest Lite Bioinformatics Platform
970-000583-00 (Annual Package)	Field Application Software Bundle (Optional Paid Software) • ATOPlex MultiPCR Explorer Software(ATOPlex MES) • ATOPlex MultiPCR Microbiome Research Software(ATOPlex MMRS) • DNA Signature Identification Software Suite(FIS Suite) • MGI FluTrack software • HIVLongSeq(HIVLS) • MGI metargetCOVID software • Metabarcoding Species Identification Software(MetaSIS) • Microbial Genome Assembler(MGA) • MGI MGAP • MTB-Explorer Software • Platform of microorganisms Fast Identification software(PFI) • Virus Identification for Rapid and Universal Screening Software(VIRUS) • Vector Identification Software(VIS)
970-000632-00 (Annual Package)	Whole Genomics and Metagenomics Application Software Bundle (Optional Paid Software) • Microbial Genome Assembler(MGA) • MGI MGAP • Platform of microorganisms Fast Identification software(PFI) • HIVLongSeq(HIVLS) • Virus Identification for Rapid and Universal Screening Software(VIRUS) • Vector Identification Software(VIS)
970-000633-00 (Annual Package)	Targeted Genomics Application Software Bundle (Optional Paid Software) • ATOPlex MultiPCR Explorer Software(ATOPlex MES) • ATOPlex MultiPCR Microbiome Research Software(ATOPlex MMRS) • DNA Signature Identification Software Suite(FIS Suite) • MGI FluTrack software • MGI metargetCOVID software • Metabarcoding Species Identification Software(MetaSIS) • MTB-Explorer Software

* For inquiries about the outright purchase of individual software. please feel free to contact us separately.

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