GeneLabs X (Pvt) Ltd.

Test Menu 2026

Prenatal Testing

Test Name	Method	Specimen	Container/ Tube type	TAT (days)
Chromosomal Aneuploidy analysis for POC	NGS	POC	Sterile container	21
Chromosomal Aneuploidy analysis for amniocentesis	NGS	Amniocentesis	Sterile container	21
Non-Invasive Prenatal Testing (NIPT)	NGS	Blood	EDTA or Streck	21
Preimplantation Genetic Screening (PGS/PGT-A)	NGS	Embryo Biopsy	0.2ml PCR tube	21
Preimplantation Genetic Diagnosis (PGD/PGT-M)-Thalassemia	NGS	Embryo Biopsy	0.2ml PCR tube	21
Pre PGD workup - Thalassemia	NGS	Blood	EDTA	21
Preimplantation Genetic Diagnosis (PGT-M)-Other Diseases	NGS	Embryo Biopsy	0.2ml PCR tube	21

Infectious Diseases

Test Name	Method	Specimen	Container/ Tube type	TAT (days)
BK Virus (BKV) Detection	RT-PCR	Blood/Urine	EDTA/Sterile container	4
Chikungunya PCR	RT-PCR	Blood	EDTA	2
Chikungunya + Dengue PCR	RT-PCR	Blood	EDTA	2
Chlamydia Trachomatis (CT) Detection	RT-PCR	Urine / Cervical/ Vaginal Swab	Sterile container/ Nylon swab	4
CMV (Cytomegalovirus) PCR	RT-PCR	Blood/Urine	EDTA/Sterile container	4
COVID-19 PCR	RT-PCR	Nasal/ Throat Swab	Nylon Swab	2
COVID-19 Whole Genome Sequencing For Variant Analysis	NGS	Nasal/Throat Swab	Nylon Swab	21
CT & NG Combined test	RT-PCR	Urine/ Cervical/ Vaginal Swab	Sterile container/ Nylon swab	4
Dengue PCR	RT-PCR	Blood	EDTA	2
Enterovirus PCR	RT-PCR	CSF/Blood	Sterile container/ EDTA	2
HSV 1 & 2 (Herpes Simplex Virus)	RT-PCR	Cervical/ Vaginal Swab	Nylon Swab	4
M. tuberculosis and Non-tuberculosis mycobacteria (MTB/NTM)	RT-PCR	Sputum/CSF/ Tissue	Sterile container/ Block container	4
Varicella Zoster Virus (VZV) Detection	RT-PCR	CSF/Blood	Sterile container/ EDTA	4
Neisseria Gonorrhoeae (NG) Detection	RT-PCR	Urine/ Cervical/ Vaginal Swab	Sterile container/ Nylon swab	4
Pneumucytis Jirovecii (PJP/PCP) Detection	RT-PCR	Respiratory/ Pleural Sample	Sterile container	4

Oncology and Hematology Testing

Test Name	Method	Specimen	Container/ Tube type	TAT (days)
ABL1 TKI resistance mutations	NGS	Blood	EDTA	21
ALK Rearrangement	FISH	Tissue block	Block container	14
ALL translocation panel {t(9:22), t(12:21), t(4:11), t(1:19)}	PCR	Bone marrow/ Blood	EDTA	5
AML + ALL translocation panels	PCR	Bone marrow/ Blood	EDTA	5
AML Extended Panel {t(15:17), t(8:21), Inv (16), NPM1, FLT3-ITD, FLT3-TKD, IDH1, IDH2, TP53	NGS & PCR	Bone marrow/ Blood	EDTA	21
AML translocation panel {t(15:17), t(8:21), Inv (16)}	PCR	Bone marrow/ Blood	EDTA	5
BCR-ABL detection (p190, p210, p230 variants)	PCR	Bone marrow/ Blood	EDTA	5
BCR-ABL quantification (IS)	PCR	Bone marrow/ Blood	EDTA	10
Beta Thalassemia mutation detection (450 mutations)	PCR	Blood	EDTA	7
BRAF V600E mutation detection by NGS	NGS	Tissue Block/ Bone marrow/ Blood	Block container/ EDTA	21
BRCA 1 & 2 mutations	NGS	Tissue block	Block container	21
BRCA Extended panel (BRCA1, BRCA2, BARD1, TP53, PTEN, PALB2)	NGS	Blood	EDTA	21
BRCA 1 & 2 MLPA for Large insertions and deletions	MLPA	Blood	EDTA	21
Cancer Hotspot panel (50 genes)	NGS	Bone marrow/Blood/ Tissue Block	EDTA/ Block container	21
DPYD mutations (5 variants)	Sanger Sequencing	Blood	EDTA	5
EGFR mutation by Sanger sequencing (low sensitivity)	Sanger Sequencing	Tissue Block	Block container	7
EGFR Extended Panel (EGFR-Exons 18 to 21,KRAS,BRAF,MET)	NGS	Tissue block	Block container	21
Factor II (Prothrombin) mutation	Sanger Sequencing	Blood	EDTA	7
Factor V Leiden mutation	Sanger Sequencing	Blood	EDTA	7
FGFR3 mutation for bladder cancer	NGS	Tissue block	Block container	21
FIP1L1 - PDGFRA Fusion detection	PCR	Bone marrow/ Blood	EDTA	7
FLT3-ITD detection	PCR	Bone marrow/ Blood	EDTA	5
GIST mutation panel (KIT,PDGFRA,BRAF)	NGS	Tissue block	Block container	21
HER2 amplification	FISH	Tissue block	Block container	21
HFE mutations	Sequencing	Blood	EDTA	7
HRR Gene Panel (Somatic)	NGS	Tissue block	Block container	45
IDH1 & IDH2 mutations for glioma	NGS	Tissue block	Block container	21
IgHv mutation analysis	Sanger Sequencing	Blood	EDTA	21

Test Name	Method	Specimen	Container/ Tube type	TAT (days)
JAK2 Exon 12 mutations	Sanger Sequencing	Blood	EDTA	7
JAK2 V617F mutation	RT-PCR	Blood	EDTA	5
KIT D816V mutation	NGS	Bone marrow/ Blood	EDTA	21
Lung Cancer Mutation Panel (EGFR,ALK,ROS1,PDL1)	NGS/FISH/ IHC	Tissue block	Block container	21
MDS Panel	FISH	Bone marrow/ Blood	Heparin	21
MPN mutation panel (JAK2 V617F,JAK2 Exon 12, MPL, CALR)	PCR/FA/ Sequencing	Bone marrow/ Blood	EDTA	7
MSI testing (Microsatellite Instability)	Fragment analysis	Tissue block	Block container	10
MTHFR C677T mutation	Sanger Sequencing	Blood	EDTA	7
MYD88 L265P mutation	Sanger Sequencing	Blood	EDTA	7
NPM1 mutations	NGS	Bone marrow/ Blood	Block container	21
PD-L1 (SP263) IHC	IHC	Tissue block	Block container	10
PML-RARA detection	PCR	Bone marrow/ Blood	EDTA	3
POLE (DNA polymerase epsilon, catalytic subunit) Gene Mutation Analysis	Sanger Sequencing	Tissue block	Block container	14
RAS extended for colon cancer (KRAS,NRAS,BRAF,PIK3CA)	NGS	Tissue block	Block container	21
ROS-1 gene rearrangement	FISH	Tissue block	Block container	10
Thrombophilia panel (Factor V Leiden, Factor II,MTHFR)	Sanger Sequencing	Blood	EDTA	7
Thyroid cancer mutation profile (BRAF,KRAS,NRAS,HRAS,RET)	NGS	Tissue block	Block container	21
TP53 mutations	NGS	Bone marrow/ Blood	EDTA	14
1p19q Deletion Test	NGS	Tissue block	Block container	21

Other Specialized Testing

Test Name	Method	Specimen	Container/ Tube type	TAT (days)
ABO Blood grouping	Agglutination	Blood	EDTA	1
16S Metagenomics	NGS	Variable	Sterile container	21
Blended Genome-Exome Sequencing	NGS	Blood	EDTA	45
CFTR genetic test (all exons)	NGS	Blood	EDTA	21
DM1 (Myotonic Dystrophy Type 1)	Triplet Primed PCR/FA	Blood	EDTA	10
DMD MLPA	MLPA	Blood	EDTA	12
HLA-A-B,DR typing (low resolution)	PCR	Blood	EDTA	3

Test Name	Method	Specimen	Container/ Tube type	TAT (days)
Karyotyping - Blood	Karyotyping	Blood	Na-Heparin	21
Microdeletion & Microduplication Syndrome Analysis	MLPA	Blood	EDTA	12
MODY Panel (Maturity-onset diabetes of the young)	NGS	Blood	EDTA	21
Paternity Testing	PCR/FA	Blood/ Buccal Swab	EDTA/ Nylon swab	21
Spinal Muscular Atrophy (SMA) - SMN1 & SMN2	MLPA	Blood	EDTA	12
Targeted Familial Variant Confirmation - First Individual	Sanger Sequencing	Blood	EDTA	45
Targeted Familial Variant Confirmation - Subsequent Individual	Sanger Sequencing	Blood	EDTA	10
Whole Exome Sequencing (Germline)	NGS	Blood	EDTA	45
Whole Exome Sequencing (Somatic)	NGS	Tissue block	Block container	45
Whole Genome Sequencing	NGS	Blood	EDTA	45

Sanger Sequencing Services

Test Name	Method	Specimen	Container/ Tube type	TAT (days)
DNA Extraction (yield upto 2 µg)	Automated	Variable	Sterile container	3
Polymerase Chain Reaction and Gel electrophoresis	PCR	DNA	Microtube	3
Gel Electrophoresis	Electrophoresis	PCR product	Microtube	2
Sanger Sequencing - single reaction	Sequencing	PCR product	Microtube	5
Fragment Analysis	Fragment analysis	PCR product	Microtube	5
DNA Extraction & PCR (including gel electrophoresis)	Sequencing	PCR product	Microtube/Sterile container	5
PCR followed by Unidirectional Sanger Sequencing	Sequencing	PCR product	Microtube	5
PCR followed by bidirectional Sanger Sequencing	Sequencing	PCR product	Microtube	5
DNA Extraction, PCR and Unidirectional Sanger Sequencing	Sequencing	PCR product	Microtube/ Sterile container	7
DNA Extraction, PCR and bidirectional Sanger Sequencing	Sequencing	PCR product	Microtube/Sterile container	7