



**Human Genetic Laboratory**  
 Department of Pathology, Faculty of Medicine Ramathibodi Hospital  
 Rama 6 Rd. Bangkok 10400  
 Tel. 0-2201-1267, 1369, 1463-4



**For Laboratory Use Only**

Lab No. / TID \_\_\_\_\_  
 Received By \_\_\_\_\_  
 Date \_\_\_\_\_ Time \_\_\_\_\_

**Patient Identification**

Patient Name \_\_\_\_\_  
 H.N. \_\_\_\_\_ Age \_\_\_\_\_ Gender  Male  Female  
 OPD / Ward \_\_\_\_\_ Tel. \_\_\_\_\_

**For Other Hospital / Company Use Only**

Name \_\_\_\_\_  
 Tel. \_\_\_\_\_  
 Fax. \_\_\_\_\_

**Clinical Information (Analytical process CANNOT be completed without adequate patient identification, clinical information and specimen type)**

**Clinical Diagnosis / Indication**

Dr. \_\_\_\_\_  
 Tel. \_\_\_\_\_  
 E-mail \_\_\_\_\_

**Genetic disorders (Prenatal and Postnatal genetic analysis) \*For PND cases, please fill-in the details below.**

Collection date \_\_\_\_\_ Amount \_\_\_\_\_ GA by Date \_\_\_\_\_ GA by U/S \_\_\_\_\_  
 PARA \_\_\_\_\_ Nature \_\_\_\_\_ LMP \_\_\_\_\_

| Laboratory Test                                     | Anticoagulant |      | รหัสบริการคณาะตาม |        |        |
|---|---------------|------|-------------------|--------|--------|
|   | Heparin       | EDTA | AF                | CV     | CB     |
| Prenatal chromosome analysis                        |               |      | 300001            | 300002 | 300006 |
|   | Heparin       | EDTA | PB                | CB     | HB     |
| Genetic disorders chromosome                        | ✓             |      | 300005            | 300006 | 300007 |
| Chromosome breakage analysis for Fanconi anemia     | ✓             |      | 300328            |        |        |
| Slide preparation and karyotyping                   |               |      |                   |        | 300169 |
| Cell maintenance and karyotyping                    |               |      |                   |        | 300170 |
| Cell culture  |               |      |                   |        | 300141 |
| VCFS/DiGeorge/CATCH22 (FISH analysis)               | ✓             |      | 300047            | 300048 | 300050 |
| Williams syndrome (FISH analysis)                   |               |      | 300069            | 300071 | 300072 |
| Prader-Willi syndrome (FISH analysis) (2 probes)    |               |      | 300088            | 300090 | 300091 |
| Sex chromosome by FISH                              | ✓             | ✓    | 300018            | 300022 |        |
| RB1 gene by FISH                                    | ✓             | ✓    | 300062            |        | 300064 |
| SRY gene by FISH                                    | ✓             | ✓    | 300267            | 300268 | 300269 |
| Aneuploidies 13, 18, 21, X and Y chromosome by FISH | ✓             | ✓    | 300224            | 300225 | 300226 |

| Laboratory Test                           | รหัสบริการคณาะตามชนิดสิ่งส่งตรวจ |        |         |        |
|---|----------------------------------|--------|---------|--------|
|   | FFPE                             | Breast | Stomach | Other  |
| HER-2/neu gene by FISH                    |                                  | 300122 | 300123  | 300124 |
| + Unstain slide (ไม่อ่าน)                 |                                  | 11844  | 11844   | 11844  |
| N-Myc amplification by FISH               | 300057                           |        |         | 300058 |
| + Unstain slide (ไม่อ่าน)                 | 11844                            |        |         | 11844  |
| Neuroblastoma by FISH panel               | 300324                           |        |         | 300325 |
| + Unstain slide (ไม่อ่าน)                 | 11844                            |        |         | 11844  |
|   | EDTA                             | PB     |         | Other  |
| DNA extraction                            | ✓                                |        |         | 300146 |
| Fragile X syndrome analysis               | ✓                                | 300077 |         |        |
| BRCA1 screening by MLPA                   | ✓                                | 300242 |         | 300243 |
| BRCA2 screening by MLPA                   | ✓                                | 300244 |         | 300245 |
| BRCA1 and BRCA2 screening by MLPA         | ✓                                | 300246 |         | 300247 |
| RB1 deletion/duplication by MLPA          | ✓                                | 300263 |         | 300264 |
| Mitochondrial disease screening by MLPA   | ✓                                | 300265 |         | 300266 |
| Prader-Willi/Angelman syndrome by MS-MLPA | ✓                                | 300275 |         | 300276 |
| Duchenne muscular dystrophy by MLPA       | ✓                                | 300240 |         | 300241 |
| Von Hippel-Lindau (VHL) disease by MPLA   | ✓                                | 300331 |         | 300332 |
| Spinal muscular atrophy screening by MLPA | ✓                                | 300294 |         | 300295 |

| Laboratory Test   | EDTA | AF     | CV     | CB     | HB     | PB     | POC    | Stool  | Other  |
|---|------|--------|--------|--------|--------|--------|--------|--------|--------|
| Stool DNA (SDC2) methylation for colorectal cancer screening                          |      |        |        |        |        |        |        | 300329 | 300330 |
| Prenatal Chromosomal Microarray   | ✓    | 300248 | 300250 | 300249 |        |        |        |        | 300251 |
| Postnatal Chromosomal Microarray  | ✓    |        |        |        |        | 300252 |        |        | 300253 |
| Trio Chromosomal Microarray   | ✓    |        |        |        |        | 300254 |        |        | 300255 |
| Exon CNV detection by microarray  | ✓    |        |        |        |        | 300322 |        |        | 300323 |
| Rapid detection of aneuploidies 13, 18, 21, X, Y and 9 Microdeletion by BoBs          | ✓    | 300153 | 300154 | 300155 | 300179 | 300180 | 300181 |        | 300156 |
| Rapid aneuploidy screening in all 24 chromosomes by BoBs                              | ✓    | 300157 | 300158 | 300159 | 300182 | 300183 | 300160 |        | 300161 |
| Rapid detection of 24 chromosomal abnormalities and 9 microdeletion syndromes by BoBs | ✓    | 300164 | 300165 | 300166 | 300184 | 300185 | 300167 |        | 300168 |
| Rapid detection of aneuploidies 13, 18, 21, X and Y by QF-PCR                         | ✓    | 300188 | 300189 | 300190 | 300191 | 300192 | 300193 |        | 300194 |

## Patient Identification

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Patient Name \_\_\_\_\_

Lab No. / TID \_\_\_\_\_

H.N. \_\_\_\_\_ Age \_\_\_\_\_ Gender  Male  Female

Received By \_\_\_\_\_

OPD / Ward \_\_\_\_\_ Tel. \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

| Hematologic malignancy Tests                          |   | Clinical Diagnosis                                |  |  |                                 |        |
|---|---|---|--|--|---------------------------------|--------|
| <input type="checkbox"/> New diagnosis                | <input type="checkbox"/> Follow up  | WBC _____ cells, Neu _____%,                      | Collection Date _____ Time _____ Last date of chemotherapy _____ |  |                                 |        |
| <input type="checkbox"/> Remission                    | <input type="checkbox"/> Relapse  | Lym _____%, Blast _____%                          |  |  |                                 |        |
| Pre BMT / SCT   |   | Post BMT / SCT                                    |  | Requisition status                       |                                 |        |
| <input type="checkbox"/> Donor                        | <input type="checkbox"/> Recipient  | <input type="checkbox"/> Autologous               | <input type="checkbox"/> Male donor                              | <input type="checkbox"/> Preliminary     | <input type="checkbox"/> Urgent |        |
| Laboratory Test                                       |   | Anticoagulant                                     |  | รหัสบริการคณะฯตามชนิดสิ่งส่งตรวจ         |                                 |        |
|   |   | Heparin   | EDTA   | BM                                       | PB                              | Other  |
| <input type="checkbox"/> Leukemia chromosome analysis |   | ✓   |  | 300009                                   | 300010                          |        |
| ALL   | <input type="checkbox"/> Multiplex RT-PCR for BCR::ABL1 p190, TEL::AML1, E2A::PBX1, MLL::AF4 in ALL and CML |   | ✓  | 300174                                   | 300173                          |        |
|   | <input type="checkbox"/> TEL::AML1 Fusion gene by FISH  | ✓   | ✓  | 300074                                   | 300073                          | 300076 |
|   | <input type="checkbox"/> Detection of MLL by FISH   | ✓   | ✓  | 300256                                   | 300257                          | 300258 |
|   | <input type="checkbox"/> IKAROS (IKZF1) and Common genetic alterations                                      |   | ✓  | 300238                                   | 300237                          | 300239 |
| AML   | <input type="checkbox"/> FLT3 Gene mutation in AML  |   | ✓  | 300148                                   | 300147                          |        |
|   | <input type="checkbox"/> Rapid FLT3 Gene mutation for newly diagnosed AML                                   |   | ✓  | 300279                                   | 300280                          |        |
|   | <input type="checkbox"/> NPM1 Gene mutation in AML  |   | ✓  | 300150                                   | 300149                          |        |
|   | <input type="checkbox"/> CEBPA Gene mutation in AML by direct sequencing                                    |   | ✓  | 300178                                   | 300177                          |        |
|   | <input type="checkbox"/> PML::RARA Fusion gene by FISH  | ✓   | ✓  | 300060                                   | 300059                          | 300061 |
|   | <input type="checkbox"/> Multiplex RT-PCR for AML1::ETO, CBFβ::MYH11, PML::RARA in AML                      |   | ✓  | 300152                                   | 300151                          |        |
|   | <input type="checkbox"/> PML::RARA Fusion gene by RT-PCR [bcr1 and bcr3]                                    |   | ✓  | 300187                                   | 300186                          |        |
|   | <input type="checkbox"/> PML::RARA by quantitative PCR (L-subtype; bcr1)                                    |   | ✓  | 300333                                   | 300334                          |        |
|   | <input type="checkbox"/> PML::RARA by quantitative PCR (V-subtype; bcr2)                                    |   | ✓  | 30335                                    | 300336                          |        |
|   | <input type="checkbox"/> PML::RARA by quantitative PCR (S-subtype; bcr3)                                    |   | ✓  | 300337                                   | 300338                          |        |
|   | <input type="checkbox"/> RUNX1::RUNX1T1 by quantitative PCR   |   | ✓  | 300339                                   | 300340                          |        |
| CML   | <input type="checkbox"/> BCR::ABL1 p210 by RQ-PCR   |   | ✓  | 300086                                   | 300087                          |        |
|   | <input type="checkbox"/> BCR::ABL1 p190 by quantitative PCR   |   | ✓  | 300273                                   | 300274                          |        |
|   | <input type="checkbox"/> Fusion gene for BCR::ABL1 by RT-PCR  |   | ✓  | 300003                                   | 300004                          |        |
|   | <input type="checkbox"/> BCR::ABL1 p190 Mutation detection by direct sequencing                             |   | ✓  | 300341                                   | 300342                          |        |
|   | <input type="checkbox"/> BCR::ABL1 p210 Mutation detection by direct sequencing                             |   | ✓  | 300130                                   | 300129                          |        |
|   | <input type="checkbox"/> BCR::ABL1 p230 Mutation detection by direct sequencing                             |   | ✓  | 300343                                   | 300344                          |        |
|   | <input type="checkbox"/> BCR::ABL1 Fusion gene by FISH  | ✓   | ✓  | 300041                                   | 300040                          | 300042 |
| MM  | <input type="checkbox"/> Multiple myeloma by FISH [del (17) and t(4;14)]                                    | ✓   | ✓  | 300171                                   |                                 |        |
|   | <input type="checkbox"/> Multiple myeloma by FISH [1p/1q, del (17), t(4;14) and t(14;16)]                   | ✓   | ✓  | 300172                                   |                                 |        |
|   | <input type="checkbox"/> Multiple myeloma by FISH [8 probes]  | ✓   | ✓  | 300227                                   |                                 | 300229 |
|   | <input type="checkbox"/> IgH Clone/MRD MM, B-cell malignancies by NGS                                       | <input type="checkbox"/> Diagnostic               | <input type="checkbox"/> Induction therapy                       | <input type="checkbox"/> Initial therapy | 300277                          | 300278 |
|   | (please specify the treatment)  | <input type="checkbox"/> Transplant consolidation | <input type="checkbox"/> Maintenance                             | 11866                                    | 11866                           |        |
|   | <input type="checkbox"/> Relapse  | <input type="checkbox"/> Supportive care          | <input type="checkbox"/> Other.....                              |  |                                 |        |
| MPNs  | <input type="checkbox"/> JAK2 V617F Mutation by AS-PCR  |   | ✓  | 300126                                   | 300125                          |        |
|   | <input type="checkbox"/> CALR (Exon 9) Mutation analysis  |   | ✓  | 300223                                   | 300222                          |        |
|   | <input type="checkbox"/> JAK2, MPL, CALR and KIT mutations in MPNs  |   | ✓  | 300318                                   | 300319                          |        |
|   | <input type="checkbox"/> JAK2 V617F mutation by quantitative PCR  |   | ✓  | 300320                                   | 300321                          |        |
|   | <input type="checkbox"/> FISH for FIPL1::PDGFRA fusion  | ✓   | ✓  | 300230                                   | 300231                          | 300232 |
| CLL   | <input type="checkbox"/> CLL panel by FISH  | ✓   | ✓  | 300271                                   | 300270                          | 300272 |
|   | <input type="checkbox"/> Deletion of 6q23 by FISH   | ✓   | ✓  | 300285                                   | 300284                          |        |
|   | <input type="checkbox"/> ATM gene by FISH   | ✓   | ✓  | 300287                                   | 300286                          |        |
|   | <input type="checkbox"/> Trisomy 12 by FISH   | ✓   | ✓  | 300289                                   | 300288                          |        |
|   | <input type="checkbox"/> Deletion of 13q14 by FISH  | ✓   | ✓  | 300291                                   | 300290                          |        |
|   | <input type="checkbox"/> TP53 by FISH   | ✓   | ✓  | 300293                                   | 300292                          |        |
|   | <input type="checkbox"/> Sex chromosome by FISH   | ✓   | ✓  | 300020                                   | 300018                          | 300023 |
|   | <input type="checkbox"/> Deletion of 5q by FISH   | ✓   | ✓  | 300327                                   | 300326                          |        |
|   | <input type="checkbox"/> Screening of 28 chromosome translocations in leukemia by RT-qPCR                   |   | ✓  | 300262                                   | 300261                          |        |
|   | <input type="checkbox"/> DNA Fingerprint  |   | ✓  | 300014                                   | 300013                          | 300017 |
|   | <input type="checkbox"/> MYD88 L265P mutation by AS-PCR   |   | ✓  | 300281                                   | 300282                          | 300283 |