

Department of Pathology UMC Utrecht

APPLICATION FORM for Molecular Pathology

SEND TO

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Requesting laboratory and/or physician

Name : Date :
 Department (code) : External PA- and/or reference number :
 Institution/country :

Material

H&E stained slide

FFPE block

Fresh frozen*

DNA

Other

Slides**

*Tick the box in case of fresh frozen material for PMC:

*Tick the box in case of fresh frozen material for PMC **and** blood for PMC (FFPE will follow):

**In case of slides: for non-FISH applications: 10 unstained sections 4µm (coated slides)

for FISH applications: 6 unstained sections 4µm (coated slides)

REMARKS:

NGS

- BRCA 1/2 (somatic)
 - CLL (chronic lymphatic leukemia)
 - Colon
 - Desmoid tumor
 - TERT
 - GIST
 - Glioma
 - Hematological diseases
 - LPL (lymphoplasmacytic lymphoma)
 - Melanoma
 - Melanocytic lesions
 - MPN (myeloproliferative neoplasms)
 - Kidney panel (PMC)
 - Thyroid carcinoma
 - TP53/Tumorclonality
 - Other
- TP53
 BRAF/RAS
 CTNNB1
 Glioma panel
 KIT/PDGFR/RAF
 e.g. IDH1/IDH2/1p19q codeletion
 e.g. SF3B1/SRSF2/U2AF1/TET2/
 SXL1/EZH2
 MYD88
 BRAF/HRAS/NRAS/KIT
 APC/BRAF/CTNNB1/GNA11/GNAQ/
 HRAS/IDH1/KIT/NRAS/TERT
 CALR/MPL/JAK2
 TP53/WT1/FBXW7/SMARCB1/
 SMARCA4
 BRAF/RAS
 TP53
- Indicate genes of interest at remarks

Lung:

- Adenocarcinoma*/non-small cell lung cancer (NSCLC)**
 - Squamous cell carcinoma***
 - cMET exon 14 skipping
 - EGFR TKI resistance
 - ALK/ROS1 inhibitors
- KRAS/EGFR/BRAF/HER2
 KRAS/FGFR1 (mut + amp)
 EGFR/HER2 (mut)/cMET (amp)
 ALK (mut)

Predictive IHC

- PD-L1 (lung)
- PD-L1(bladder)
- PD-L1 (breast)
- Pan-NTRK

RT-PCR

- KIAA-BRAF
- YWHAE-FAM22A/B
- EWSR1
- FGFR3-TACC3

duplicatie 7q34
 t(10;17)
 FL1/ERG/WT1
 duplicatie 4p16

Other molecular analyses

- Archer
- BRAF Idylla****
- HPV m Allinity (RvA: M 208)
- HPV genotyping assay
- B-cel clonality
- T-cel clonality
- Tissue-identification
- Neuroblastoma
- PNET V medulloblastoma

FusionPlex Lung
 V600E/D + V600K/R/M
 High risk****
 High risk + low risk****

SNP: 1p/17q/ALK, FISH: N-MYC,
 NGS: ALK
 IHC: CTNNB1 + p53,
 FISH: cMYC/N-MYC/CEN6, NGS

ddPCR

- BRAF p.(V600E)
- EGFR exon 19 deletions
- EGFR p.(L858R)
- EGFR resistance p.(T790M)
- MYD88 p.(L265P)

Arrays

- SNP array
- Methylation profiling

e.g. Wilms tumor, clonality, etc.
 Classification of CNS tumors

**Please turn over for FISH, MSI, MLPA,
 DNA-isolation and Chimerism**

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Fluorescence In Situ Hybridisation

Soft tissue

- CHOP
 - EWSR1
 - FKHR (FOXO1)
 - FUS
 - MDM2
 - SYT
- Break-apart
Break-apart + fusion FLI1
Break-apart
Break-apart
Break-apart
Break-apart

Lymphoma

- BCL-2
 - BCL6
 - cMYC
 - CCND1 (Cyclin-D1)
 - MALT1
- Break-apart
Break-apart
Break-apart + fusion IgH
Break-apart
Break-apart

Chromosomes

- Centromere X/Y/18
- Centromere 13/18/21

Other

- ALK
 - BCOR
 - cMET
 - COL1A1-PDGFB
 - ERBB2 (Her2neu)
 - ETV6
 - HMGA2
 - MAML2
 - MUM1 (IRF4)
 - MYB
 - N-MYC
 - NRG1
 - NTRK 1/2/3
 - PLAG1
 - PLAG1/CTNNB1
 - RET
 - ROS1
 - TFE3
 - USP6
 - Research ISH
- Break-apart
Break-apart
Amplification
Fusion
Amplification
Break-apart
Indicate gene of interest at remarks

MSI for Lynch syndrome (tumor and normal)

- (IHC MMR proteins + Idylla)
- MSI Lynch (via Idylla)
 - MLH1 hypermethylation and BRAF Mutation analysis (only V600E) for MSI

MSI for therapeutic purposes

- (IHC MMR proteins)

- Only tumor tissue

DNA-isolation

- DNA-isolation tumor tissue
- DNA-isolation normal tissue
- DNA-isolation other, e.g. blood

MLPA

- MLPA 1p19q codeletion
- MLPA FGFR
- MLPA Her2neu
- MLPA MDM2/CDK4
- MLPA Trisomy 13/18/21/X/Y
- MLPA Wilms tumors
- MS-MLPA BRCA1 hypermethylation
- MS-MLPA MGMT promotermethylation

Chimerism

- Whole blood
- T-/non-T

* For lung applications: also send a distinctive staining, e.g. TTF1, together with your application

** If no mutations are found in KRAS and/or EGFR for adenocarcinoma/NSCLC, additional translocation analysis will be performed (according to agreement)

*** If no mutations are found in KRAS and/or FGFR1 for squamous cell carcinoma an additional ALK analysis will be performed

**** For all HPV applications:

Severe dysplasia/CIS/invasive: apply for HPV m Allinity

Low/moderate dysplasia//verrucous: apply for HPV genotyping assay

***** For BRAF Idylla please send a block or a 10µm tissue slide in a tube with a representative H&E staining for the appropriate tumor percentage (at least 20% is necessary)