

**SEND TO**

Department of Pathology UMC Utrecht  
Attn Molecular Pathology  
Roomnumber H04.312  
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## Patient information

Name + initials:

Adress:

Date of birth:

Gender:

Citizen Service Number (BSN):

**Patient administration**

Tel +31 (0)88 7557615  
Fax +31 (0)88 7569588  
E-mail administratie-pathologie@umcutrecht.nl

**Molecular Pathology**

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E-mail pathology-moleculardiagnosics@umcutrecht.nl

PATHOLOGY UMC UTRECHT:

**Requesting laboratory and/or physician**

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

**Material**

H&E stained slide  
FFPE block :  
Fresh frozen\* :

\*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):

DNA :  
Other :  
Slides\*\* :

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

**RT-PCR**

KIAA-BRAF	duplicatie 7q34
YWHAE-FAM22A/B	t(10;17)
EWSR1	FL1/ERG/WT1
FGFR3-TACC3	duplicatie 4p16

**Other molecular analyses**

Archer	FusionPlex Lung
BRAF Idylla****	V600E/D + V600K/R/M
HPV cobas 4800	High risk****
HPV Linear Array genotyping assay	High risk + low risk****
B-cel clonality	
T-cel clonality	
Tissue-identification	
Neuroblastoma	SNP: 1p/17q/ALK, FISH: N-MYC,
	NGS: ALK
	IHC: CTNNB1 + p53,
	FISH: cMYC/N-MYC/CEN6, NGS
PNET V medulloblastoma	

**ddPCR**

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

**Arrays**

SNP array	e.g. Wilms tumor, clonality, etc.
Methylation profiling	Classification of CNS tumors

**Lung:**

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

**Predictive IHC**

PD-L1  
Pan-NTRK

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

**Fluorescence In Situ Hybridisation**Soft tissue

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

Lymphoma

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

Chromosomes

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

Other

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

**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 cobas 4800

Low/moderate dysplasia/verrucous: apply for HPV Linear Array 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)