

**MOLECULAR HISTOPATHOLOGY, PATHOLOGY DEP., HKL**

Tel: +603-2615 5603 Fax: +603-2615 5703 Email: molpath.histohkl@moh.gov.my

**REQUEST FORM FOR MOLECULAR TESTING**

SPECIMEN INFORMATION DETAILS		PATIENT DETAILS	
HPE Number		Name	
Block Number		NRIC	
Specimen Site/ Tissue Type		Gender	
Requesting Doctor		Ethnicity	
Date of Request		Age	
Department/ Institution		<b>For Laboratory Use Only</b>	
Contact Number		HPE No.	
Email Address		Date Received	
Reason for requesting the Molecular Test (compulsory)		Date Reported	
		PIC Name /Signature	
		Remarks:	

**NOTES**

1. Please complete all the information below. Kindly attach the completed request form with a copy of the HPE report, one (1) H&E slide and one (1) paraffin block. For further enquiries, please contact EN. MOHD FADZLY BIN SHAHARUDDIN or MOLECULAR PATHOLOGIST ON-CALL at +603-2615 5603
2. Please contact the Molecular Pathologist on-call before submitting the request for molecular testing.
3. Each Molecular Testing request form must be accompanied with:
  - A copy of the patient's HPE report
  - One (1) H&E slide
  - One (1) paraffin block
4. Molecular testing results may be invalid if performed on:
  - Tissue with scanty tumour material. Minimum tumour cell requirement: at least 20% viable tumour.
  - Tissue that is improperly fixed in which recommended fixation procedures have not been followed
  - Tissue decalcified with strong acids (e.g. RDO). Chelating agents (e.g. Osteosoft) are preferred for molecular testing.
5. Refer to page 2 for an up-to-date list of available molecular tests. Please tick (✓) at the appropriate box.



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Please tick (✓) at the appropriate box or where applicable

FISH TESTING			
FISH Probe	Localization	Type of Probe	Indication
<b>NEUROPATHOLOGY</b>			
MYCN	2p24	Amplification	<ul style="list-style-type: none"> <li>Neuroblastoma</li> <li>Medulloblastoma</li> </ul>
1p19q	1p36 and 19q13	Co-Deletion/Deletion	<ul style="list-style-type: none"> <li>Oligodendroglioma</li> </ul>
<b>LUNG CANCER</b>			
ALK for NSCLC	2p23	Break-Apart	<ul style="list-style-type: none"> <li>Lung Cancer</li> </ul>
<b>SOFT TISSUE TUMOUR</b>			
EWSR1	22q12	Break-Apart	<ul style="list-style-type: none"> <li>Ewing Sarcoma</li> <li>Clear Cell Sarcoma</li> </ul>
SS18	18q11.2	Break-Apart	<ul style="list-style-type: none"> <li>Synovial Sarcoma</li> </ul>
ETV6	7p22	Break-Apart	<ul style="list-style-type: none"> <li>Infantile Fibrosarcoma</li> <li>Mesoblastic Nephroma</li> </ul>
CDK4	12q14.1	Amplification	<ul style="list-style-type: none"> <li>ALT/WDL</li> <li>Dedifferentiated Liposarcoma</li> </ul>
MDM2	12q15	Amplification	<ul style="list-style-type: none"> <li>ALT/WDL</li> <li>Dedifferentiated Liposarcoma</li> </ul>
<b>LYMPHOMA</b>			
CMYC	8q24	Break-Apart	<ul style="list-style-type: none"> <li>Burkitt Lymphoma</li> <li>DLBCL</li> </ul>
BCL-2	18q21.33	Break-Apart	<ul style="list-style-type: none"> <li>DLBCL</li> </ul>
BCL-6	3q27	Break-Apart	<ul style="list-style-type: none"> <li>DLBCL</li> </ul>

PCR & SEQUENCING TEST			
Primer Name	Localization	Type of Primer	Indication
<b>POLYMERASE CHAIN REACTION (PCR)</b>			
IDH1/2	IDH1 R132, R100 IDH2 R172	Mutation	<ul style="list-style-type: none"> <li>Glioma</li> </ul>
BRAF	Codon 600 of the BRAF oncogene (V600E, V600Ec, V600D, V600K and V600R)	Mutation	<ul style="list-style-type: none"> <li>Malignant Melanoma</li> <li>Colorectal Cancer</li> </ul>
KRAS	Exon 2 (Codon 12 and 13)	Mutation	<ul style="list-style-type: none"> <li>Colorectal Cancer</li> <li>Lung Cancer</li> </ul>
<b>PYROSEQUENCING</b>			
MGMT	Four CpG sites in Exon 1 of the human MGMT gene	Methylation	<ul style="list-style-type: none"> <li>Glioma</li> <li>Paraganglioma</li> </ul>
KRAS	Exon 2 (Codon 12 and 13) Exon 3 (Codon 59)	Mutation	<ul style="list-style-type: none"> <li>Colorectal Cancer</li> <li>Lung Cancer</li> </ul>
RAS Extension	KRAS Exon 3 and 4 NRAS Exon 2, 3 and 4	Mutation	<ul style="list-style-type: none"> <li>Colorectal Cancer</li> </ul>