



**Molecular Oncology Testing Requisition Form** *Must be filled out completely.*

Internal Use Only Accession #: \_\_\_\_\_

**To Order Oncology Tests:**

For Paraffin Embedded Tissue samples, fax completed form to Surgical Pathology at (212)305-2301  
For Leukemia and other samples, fax completed form to the PGM Laboratory at (212)342-0420

| PATIENT INFORMATION:   |   |  |
|--|---|--|
| LAST NAME:   | FIRST NAME:   | M.I.:  |
| DATE OF BIRTH:   | MRN:  | GENDER:<br><input type="checkbox"/> MALE <input type="checkbox"/> FEMALE |
| ADDRESS:   |   |  |
| CITY, STATE & ZIP:   |   |  |
| HOME PHONE:  | WORK PHONE:   |  |
| INSURANCE INFORMATION:   |   |  |
| NAME OF POLICY HOLDER:   | DATE OF BIRTH:  |  |
| RELATIONSHIP TO PATIENT:   | <input type="checkbox"/> SELF <input type="checkbox"/> PARENT <input type="checkbox"/> SPOUSE <input type="checkbox"/> CHILD <input type="checkbox"/> OTHER |  |
| NAME & ADDRESS OF INSURANCE COMPANY:   |   |  |
| POLICY NUMBER:   | GROUP NUMBER:   |  |
| SECONDARY INSURANCE CARRIER:   | NAME OF POLICY HOLDER:  |  |
| POLICY NUMBER:   | GROUP NUMBER:   |  |
| <b>MEDICARE PATIENTS ONLY:</b> Check here to confirm that an Advance Beneficiary Notice (ABN) was signed by the Patient: <input type="checkbox"/>                        |   |  |
| <b>CREDIT CARD:</b> I have provided my credit card information to the Pathology Billing Office (call 212-305-7399 to provide card information). <input type="checkbox"/> |   |  |
| <b>PREAUTHORIZATION:</b> If health insurance preauthorization is required, check here if preauthorization is pending: <input type="checkbox"/>                           |   |  |

| ORDERING PHYSICIAN INFORMATION:   |                |       |
|---|----------------|-------|
| LAST NAME:  | FIRST NAME:    | M.I.: |
| INSTITUTION:  | NPI #:         |       |
| ADDRESS:  |                |       |
| CITY, STATE & ZIP:  |                |       |
| TELEPHONE NUMBER:   | FAX NUMBER:    |       |
| EMAIL ADDRESS:  |                |       |
| SIGNATURE:  | DATE:          |       |
| GENETIC COUNSELOR NAME:   | EMAIL ADDRESS: |       |
| <b>INSTITUTIONAL BILLING:</b> Do you have a PGM Billing Account?<br><input type="checkbox"/> Yes P.O. # _____<br><input type="checkbox"/> No (Email <a href="mailto:PGMinquiry@cumc.columbia.edu">PGMinquiry@cumc.columbia.edu</a> to establish an account)   |                |       |
| <b>NOTE TO HEALTH CARE PRACTITIONER:</b> It is New York State Law and Columbia University Policy that an informed consent is obtained prior to performing genetic predisposition testing and maintained in the patient's medical record. Please use the appropriate disease/gene information/informed consent sheet, ensure that the patient/legal guardian understands its contents, and obtain the person's signature. If the patient consents to having the sample retained in the lab for greater than 60 days, please include a copy of the consent form with this requisition. <b>I have obtained a signed informed consent to perform genetic testing in accordance with New York State Civil Rights Law, 79-L, and the informed consent is retained in the patient's medical record.</b> <input type="checkbox"/> |                |       |

| TISSUE / SAMPLE INFORMATION:  |  |                                     |
|---|--|-------------------------------------|
| <input type="checkbox"/> BLOOD IN EDTA (Lavender top tube, 3-5ml, room temperature or refrigerated)                 | <input type="checkbox"/> PARAFFIN EMBEDDED TISSUE (Ship at room temperature) |                                     |
| <input type="checkbox"/> OTHER: _____ (Call before sending sample. Fresh Tissue is NOT accepted in the Laboratory.) |  |                                     |
| DATE SPECIMEN COLLECTED: _____ / _____ / _____  | TIME: _____ AM _____ PM  | DATE ORDERED: _____ / _____ / _____ |
| <input type="checkbox"/> PATHOLOGY SPECIMEN ID NUMBER: _____  | Unstained Slides: _____  |                                     |

| CLINICAL INFORMATION:                                |                                      |
|--|--------------------------------------|
| <input type="checkbox"/> Possible Diagnosis of _____ | Other Relevant Clinical Information: |
| <input type="checkbox"/> History of _____            | ICD 10 Code(s): _____                |

| TEST ORDERED (FILL IN COMPLETELY):   |   |  |   |
|--|---|--|---|
| SINGLE GENE TESTING  |   | HEMATOLOGY/ONCOLOGY TESTING  |   |
| <input type="checkbox"/> BRAF V600E Test   | <input type="checkbox"/> KRAS Exon 2                            | <input type="checkbox"/> Immunoglobulin Heavy Chain (IGH) Gene Rearrangement by Fluorescent PCR  | <input type="checkbox"/> BCR-ABL quantitative Test by RT-PCR                                    |
| <input type="checkbox"/> EGFR Exon 18-21   | <input type="checkbox"/> MGMT Methylation Assay                 | <input type="checkbox"/> TCR-beta Rearrangement by Fluorescent PCR   | <input type="checkbox"/> IDH1/IDH2  |
| <input type="checkbox"/> EGFR Expression Test for EGFRvIII   | <input type="checkbox"/> MSI Microsatellite Instability Testing | <input type="checkbox"/> JAK2 V617F Mutation Test by RT-PCR  | <input type="checkbox"/> Storage Molecular Oncology - <i>HemePath ONLY-no testing performed</i> |
| NEXT-GENERATION SEQUENCING   |   |  |   |
| <input type="checkbox"/> TruSeq Amplicon Cancer Panel<br><input type="checkbox"/> Lung Panel - EGFR, KRAS, BRAF, MET, ERBB2, PIK3CA<br><input type="checkbox"/> Colorectal Panel - KRAS, BRAF, NRAS, PIK3CA<br><input type="checkbox"/> GIST Panel - KIT, PDGFRA<br><input type="checkbox"/> Melanoma Panel - NRAS, BRAF, GNA11, GNAq, KIT<br><input type="checkbox"/> Cholangiocarcinoma Panel - KRAS, BRAF, NRAS, IDH1<br><input type="checkbox"/> Thyroid Panel - AKT1, BRAF, CTNNB1, GNAS, HRAS, KRAS, NRAS, PIK3CA, PTEN, RET, TP53 |   | <input type="checkbox"/> Extended RAS Panel for Thyroid by NGS<br><input type="checkbox"/> Cancer Whole Exome Sequencing with Transcriptome*<br><input type="checkbox"/> Columbia Combined Cancer Panel (CCCP) |   |
| Complete list of genes on page 2   |   | *Transcriptome is only available on frozen tissue.   |   |
| <b>LAB USE ONLY:</b> Tissue contains _____ % of Tumor  |   |  |   |
| Reviewer's Name (Printed) _____  |   | Reviewer's Signature _____   |   |



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| COLUMBIA COMBINED CANCER PANEL (CCCP) EXONS ONLY  |        |         |         |           |          |         |        |         |         |         |          |       |
|---|--------|---------|---------|-----------|----------|---------|--------|---------|---------|---------|----------|-------|
| AKT1  | BMP1A  | CDC45   | EPHA3   | FLCN      | IDH1     | KMT2C   | MRE11A | PDGFRA  | PTPRD   | SDHB    | STAT3    | WRN   |
| AKT2  | BRC1A  | CEBPA   | EPHA5   | FLT1      | IDH2     | KMT2D   | MSH2   | PDPK1   | PTPRS   | SDHC    | STAT5B   | WT1   |
| AKT3  | BRC2A  | CHEK1   | EPHB1   | FLT3      | IFNGR1   | KRAS    | MSH6   | PHF6    | PTPRT   | SDHD    | STAT6    | XIAP  |
| ALOX12B   | BRC3   | CHEK2   | ERBB2   | FLT4      | IGF1     | LAMB4   | MTOR   | PHF8    | PTTG1   | SETBP1  | STK11    | XPA   |
| AMER1   | BRIP1  | CNOT3   | ERBB3   | FOXA1     | IGF1R    | LATS1   | MUTYH  | PHOX2B  | RAC1    | SETD2   | STK40    | XPC   |
| APC   | BTK    | CREBBP  | ERBB4   | FOXL2     | IGF2     | LATS2   | MYC    | PIGA    | RAD21   | SF1     | SUFU     | XPO1  |
| AR  | BUB1B  | CRKL    | ERCC2   | FUBP1     | IKBKE    | LMO1    | MYCL   | PIK3C2G | RAD50   | SF3A1   | TP53BP1  | YAP1  |
| ARAF  | CALR   | CRLF2   | ERCC3   | FYN       | IL10     | LUC7L2  | MYCN   | PIK3C3  | RAD51   | SF3B1   | TBL1XR1  | YES1  |
| ARID1A  | CARD11 | CSF1R   | ERCC4   | GATA1     | IL6ST    | MAP2K1  | MYD88  | PIK3CA  | RAD51B  | SF2B3   | TBX3     | ZRSR2 |
| ARID1B  | CASP8  | CSF3R   | ERCC5   | GATA2     | IL7R     | MAP2K2  | MYO1D  | PIK3CB  | RAD51C  | SH2D1A  | TCF3     |       |
| ARID2   | CBLB   | CTCF    | ESR1    | GATA3     | INPP4A   | MAP2K4  | NBN    | PIK3CD  | RAD51D  | SHQ1    | TERT     |       |
| ARID5B  | CBLC   | CTLA4   | EXT1    | GMNN      | INPP4B   | MAP3K1  | NCOR1  | PIK3CG  | RAD52   | SMAD2   | TET1     |       |
| ASXL1   | CCND3  | CUL3    | EXT2    | GNA11     | INSR     | MAP3K13 | NF1    | PIK3R1  | RAD54L  | SMAD3   | TET2     |       |
| ASXL2   | CNE1   | CYLD    | EZH2    | GNA13     | IRF1     | MAPK1   | NF2    | PIK3R2  | RASA1   | SMAD4   | TET3     |       |
| ATM   | CD276  | CDAXX   | FAM175A | GNAQ      | IRF4     | MAX     | NFE2L2 | PIK3R3  | RB1     | SMARCA4 | TGFBF1   |       |
| ATR   | CD58   | DCUN1D1 | FAM46C  | GNAS      | IRF8     | MCL1    | NIPBL  | PLK2    | RBM10   | SMARCB1 | TGFBF2   |       |
| ATRX  | CDC6   | DDB2    | FANCA   | GNB1      | IRS1     | MCM2    | NKX2-1 | PMAIP1  | RECQL4  | SMARCD1 | TMEM127  |       |
| AURKA   | CDC7   | DDR2    | FANCC   | GOPC      | IRS2     | MCM3    | NKX3-1 | PMS1    | REL     | SMARCE1 | TNFAIP3  |       |
| AURKB   | CDC73  | DICER1  | FANCD2  | GREM1     | JAK1     | MCM4    | NOTCH1 | PMS2    | RFWD2   | SMC1A   | TNFRSF14 |       |
| AXIN1   | CDC45  | DIS3    | FANCE   | GRID1     | JAK3     | MCM5    | NOTCH2 | PNRC1   | RHOA    | SMC3    | TOPBP1   |       |
| AXIN2   | CDH1   | DNM2    | FANCF   | GRIN2A    | JUN      | MCM6    | NOTCH3 | POLE    | RICTOR  | SMO     | TP53     |       |
| AXL   | CDK12  | DNMT1   | FANCG   | GSK3B     | KCNJ5    | MCM7    | NOTCH4 | POT1    | RIT1    | SOC3    | TP63     |       |
| B2M   | CDK4   | DNMT3A  | FAS     | H3F3A     | KDM5C    | MDC1    | NRAS   | PPP2R1A | RNF43   | SOX17   | TRAF7    |       |
| BAP1  | CDK8   | DNMT3B  | FAT1    | H3F3C     | KDM6A    | MDM2    | NT5C2  | PRDM1   | RPL10   | SOX2    | TSC1     |       |
| BARD1   | CDKN1A | DOT1L   | FBXO11  | HGF       | KDM6B    | MDM4    | NTRK2  | PRF1    | RPL5    | SOX9    | TSC2     |       |
| BBC3  | CDKN1B | E2F3    | FBXW7   | HIST1H1C  | KDR      | MED12   | PAK1   | PRPF40B | RPS6KA4 | SPEN    | TSHR     |       |
| BCL11B  | CDKN2A | ECT2L   | FGF19   | HIST1H2BD | KEAP1    | MEF2B   | PAK7   | PRPF8   | RPS6KB2 | SPOP    | U2AF1    |       |
| BCL2L1  | CDKN2B | EED     | FGF3    | HIST1H3B  | KIAA1549 | MEN1    | PALB2  | PTCH1   | RPTOR   | SRC     | U2AF2    |       |
| BCL2L11   | CDKN2C | EGFL7   | FGF4    | HNF1A     | KIT      | MET     | PARK2  | PTEN    | RYPB    | SRSF2   | UBR5     |       |
| BCL6  | CDT1   | EGFR    | FGFR2   | HRAS      | KLF4     | MITF    | PARP1  | PTPN1   | SBDS    | STAG1   | VHL      |       |
| BCORL1  | CD79A  | E1F1AX  | FGFR4   | ICOSLG    | KLF6     | MLH1    | PBRM1  | PTPN11  | SDHA    | STAG2   | VTCN1    |       |
| BLM   | CD79B  | EPCAM   | FH      | ID3       | KLHL6    | MPL     | PDCD1  | PTPRC   | SDHAF2  | STAG3   | WAS      |       |
| COLUMBIA COMBINED CANCER PANEL (CCCP) WHOLE GENES |        |         |         |           |          |         |        |         |         |         |          |       |
| ABL1  | BRD4   | CIITA   | EP300   | EWSR1     | FUS      | KAT6A   | NPM1   | PAX5    | PPARG   | RUNX1   | SUZ12    | TPM3  |
| ALK   | CBL    | CLTC    | ERG     | EZR       | GPC3     | KIF5B   | NTRK1  | PAX8    | PRKAR1A | SLC45A3 | SYK      | USP6  |
| BCOR  | CD274  | CLTCL1  | ETV1    | FGFR1     | HMGA2    | KMT2A   | NTRK3  | PDGFRB  | RAF1    | SS18    | TAF15    |       |
| BCR   | CD74   | CREBBP  | ETV4    | FGFR3     | IL2      | LRI3    | NUP214 | PICALM  | RARA    | SSX1    | TCF12    |       |
| BRAF  | CDK6   | CRLF2   | ETV5    | FGFR3     | ITK      | MECOM   | NUP98  | PLAG1   | RET     | SSX2    | TFE3     |       |
| BRD3  | CIC    | CTNNB1  | ETV6    | FOXO1     | JAK2     | MLL2T10 | NUTM1  | PML     | ROS1    | SSX4    | TMPRSS2  |       |
| TRUSeq AMPLICON CANCER PANEL                      |        |         |         |           |          |         |        |         |         |         |          |       |
| ABL1  | ATM    | CSF1R   | ERBB4   | FGFR3     | GNAS     | JAK2    | KRAS   | NOTCH1  | PIK3CA  | RET     | SRC      |       |
| AKT1  | BRAF   | CTNNB1  | FBXW7   | FLT3      | HNF1A    | JAK3    | MET    | NPM1    | PTEN    | SMAD4   | STK11    |       |
| ALK   | CDH1   | EGFR    | FGFR1   | GNA11     | HRAS     | KDR     | MLH1   | NRAS    | PTPN11  | SMARCB1 | TP53     |       |
| APC   | CDKN2A | ERBB2   | FGFR2   | GNAQ      | IDH1     | KIT     | MPL    | PDGFRA  | RB1     | SMO     | VHL      |       |

**INSTRUCTIONS FOR SUBMISSION OF MOLECULAR ONCOLOGY SPECIMENS**

**BRAF:** 10 unstained, unbaked sections on regular slides with a serial H&E-stained section to document presence of tumor in block. If the section clearly contains greater than 40% tumor cells (not tumor area), then five 10-micrometer sections in a 1.5-2ml DNase-free, RNase-free microcentrifuge tube along with a serial H&E-stained section will be accepted.

**Cancer Whole Exome Sequencing with Transcriptome (CWES):** Performed only on snap frozen tissue in the CLIA tissue bank. 10 unstained slides and 1 H&E are required from the tumor. A normal control from the patient is also required (blood or buccal swabs) and should be submitted to PGM by the clinical team.

**EGFR and/or KRAS Mutation Test by Sequencing:** 10, 10-micrometer blanks from paraffin block containing highest percentage of tumor, on non-coated slides; do not bake slides. Submit one H&E stained-slide from same paraffin block, cut after the 5<sup>th</sup> blank (note: if ordering EGFR and KRAS mutation on same paraffin block, only one sample is needed).

**EGFRviii Tumor Sample:** 5-10 10-µm sections of tumor in a 1.7ml or 2.0 ml microcentrifuge tube. Label tube with surgical pathology accession number and block designation. **One H&E-stained slide:** Cut either immediately prior to or after paraffin sections above ("serial section"). In lieu of a serial section, a notation from a neuropathologist, indicating that the sections contain greater than 50% tumor, is also acceptable. Submit to lab at room temperature.

**MGMT Tumor Sample:** 5-10 5-µm sections of tumor in a 1.7ml or 2.0 ml microcentrifuge tube. Label tube with surgical pathology accession number and block designation. **One H&E-stained slide:** Cut either immediately prior to or after paraffin sections above ("serial section"). (In lieu of a serial section, a notation from a neuropathologist, indicating that the sections contain greater than 50% tumor, is also acceptable. Submit to lab at room temperature. (1-5 unstained slides in lieu of tissue in microcentrifuge tube, will also be accepted; if section has less than 50% tumor, please submit slides, and circle area of tumor; do not bake slides). If the original pathology had been performed at CUMC, please fax requisition above to the attention of attending who signed out the original surgical case to have case cut.

**MSI Microsatellite Instability:** Five 10-µm sections of tumor and normal in separate PCR tubes with serial H&E of tumor. **If less than 50% tumor in block,** then five 10-µm unstained sections on UNCOATED slides with tumor indicated on serial H&E, along with five sections from normal block in PCR tube, if available. Microdissected DNA from tumor and normal if certified by an Pathologist may also be used.

**TruSeq Targeted Cancer Panel & Columbia Combined Cancer Panel (CCCP):** 10 unstained, unbaked sections on regular slides with a serial H&E-stained section to document presence of tumor in block.