



ALVERNO LABORATORIES

Precision Medicine Requisition

CLIENT INFORMATION

ACCOUNT NAME: ACCOUNT #:
 STREET ADDRESS:
 CITY, ST, ZIP: FAX:
 PHONE: DATE:
 REQUISITION COMPLETED BY: ORDERING PHYSICIAN (LAST, FIRST):
 NPI #:
 TREATING PHYSICIAN (LAST, FIRST):
 NPI #:
 THE UNDERSIGNED CERTIFIES THAT HE/SHE IS LICENSED TO ORDER THE TEST(S) LISTED BELOW AND THAT SUCH TEST(S) ARE MEDICALLY NECESSARY FOR THE CARE/TREATMENT OF THIS PATIENT.
 AUTHORIZED SIGNATURE: DATE:

PATIENT INFORMATION

LAST NAME: MALE FEMALE
 FIRST NAME: M.I. D.O.B.:
 OTHER PT ID/ACCT #: MED. RECORD #:
 CLIENT REPRESENTS IT HAS OBTAINED CONSENT FROM PATIENT TO PERFORM THE SERVICES DESCRIBED HEREIN.

SPECIMEN INFORMATION

SPECIMEN ID: BLOCK ID:
 FIXATIVE/PRESERVATIVE: COLLECTION DATE: COLLECTION TIME:
 RETRIEVED DATE: AM PM
 HOSPITAL DISCHARGE DATE:
 BODY SITE:
 Primary Metastasis- If Metastasis, list Primary:
 Peripheral Blood: Green Top(s) Purple Top(s) Other
 FNA cell block:
 Slides # Unstained Stained H&E
 Paraffin Block(s) #: Choose best block
 Perform tests on all blocks
 Other (Please contact the lab before sending.)
 Breast Marker & GI HER2 Fixation (CAP/ASCO Requirement for Breast and Non-Breast)
 Cold ischemic time ≤ 1 hour: Yes No Unknown
 10% neutral buffered formalin: Yes No Unknown
 HER2/ER/PgR Fixation duration 6 to 72 hours: Yes No Unknown

BILLING INFORMATION

REQUIRED: PLEASE INCLUDE FACE SHEET AND FRONT/BACK OF PATIENT'S INSURANCE CARD.
 PATIENT STATUS: Hospital Patient (in) Hospital Patient (out) Non-Hospital Patient
 BILL TO: Client Bill Insurance Medicare Medicaid Patient/Self-Pay
 Split Billing- Client(TC) and Insurance (PC) OP Molecular to MCR, all other testing to Client
 Bill charges to other Hospital/Facility:
 PRIOR AUTHORIZATION #:

CLINICAL FORMATION

REQUIRED: PLEASE ATTACH PATIENT'S PATHOLOGY REPORT (REQUIRED), CLINICAL HISTORY, AND OTHER APPLICABLE REPORT (S).
 ICD-10 (DIAGNOSIS) CODE/NARRATIVE (REQUIRED):
 REASON FOR REFERRAL:
 New Diagnosis Relapse In Remission Monitoring
 STAGING: 0 I II III IIIA IIIB IV
 NOTE:

MISC TEST

GERMLINE TESTING

5-FLUOROURACIL (ARUP) 2012166
 ALLOPURINOL (ZYLOPRIM) H5801
 CYTOCHROME P450 GENOTYPING
 PANEL P450
 CYP2D6 CP2D6

MELANOMA - ALVERNO

BRAF BRAFP
 COMPREHENSIVE NGS SOLID TUMOR PANEL WITH MSI/TMB **NGSCP**
QUEST
 NRAS NRASA
 KIT CKIT
 PD-L1 (28-8) (OPDIVO) NLUPD
 PD-L1 (22C3) NON-LUNG (PEMBROLIZUMAB), IHC PDL1
 PD-L1 (SP142) NON-LUNG (ATEZOLIZUMAB), IHC 94047

NON-SMALL CELL LUNG CANCER - ALVERNO

EGFR EGFRP BRAF BRAFP KRAS KRAMT
 EGFR WITH REFLEX TO ALK AND ROS1 FISH
 KRAS WITH REFLEX TO EGFR/ALK/ROS1 LNCPK
 ALK FISH ALKF
 ROS1 FISH ROS1
 PD-L1 (22C3) (KEYTRUDA) AP REQUEST FORM
 COMPREHENSIVE NGS SOLID TUMOR PANEL WITH MSI/TMB **NGSCP**
QUEST
 PD-L1 (28-8) (OPDIVO) PDLUN
 PD-L1 (SP142) (TECENTRIQ) PDLIA
 PD-L1 (SP263), IHC WITH INTERP 94007
 MET AMPLIFICATION FISH METGA
NEOGENOMICS
 MET EXON 14 SKIPPING
 RET FISH

GIST - ALVERNO

BRAF BRAFP
QUEST
 KIT/PDGRFA PANEL KITGI

ESOPHAGUS/GASTRIC CARCINOMA - ALVERNO

HER2 IHC WITH REFLEX TO FISH AP REQUEST FORM
 PD-L1 (22C3) (KEYTRUDA) AP REQUEST FORM
 MMR AP REQUEST FORM
 COMPREHENSIVE NGS SOLID TUMOR PANEL WITH MSI/TMB **NGSCP**

OVARIAN CARCINOMA - ALVERNO

EGFR EGFRP HER2 IHC KRAS KRAMT
 COMPREHENSIVE NGS SOLID TUMOR PANEL WITH MSI/TMB **NGSCP**
QUEST
 BRCA Panel (BRACA1, BRACA2) BRCAP

BREAST CARCINOMA - ALVERNO

PD-L1 (SP142) (TRIPLE NEGATIVE) (TECENTRIQ)
 COMPREHENSIVE NGS SOLID TUMOR PANEL WITH MSI/TMB **NGSCP**

ENDOMETRIUM - ALVERNO

MMR WITH MLH1 METHYLATION REFLEX (ALVERNO/QUEST)
 MSI FOR CHECKPOINT THERAPY MSICP
 MSI FOR LYNCH SCREENING MSILN
 COMPREHENSIVE NGS SOLID TUMOR PANEL WITH MSI/TMB **NGSCP**
QUEST
 MLH1 METHYLATION STUDIES MLH1M

GTC *See PAGE 2 FOR DETAILS

www.genomicstestingcooperative.com
 SOLID TUMOR PROFILE PLUS (434 DNA /1408 RNA Genes)
 LIQUID TRACE™ SOLID TUMOR (284 DNA /1501 RNA Genes)

COLORECTAL CARCINOMA - ALVERNO

MSI FOR LYNCH SCREENING MSILN BRAF BRAFP
 MSI FOR CHECKPOINT THERAPY MSICP KRAS KRAMT
 MMR WITH REFLEX TO BRAF/MLH1 METHYLATION
 COMPREHENSIVE NGS SOLID TUMOR PANEL WITH MSI/TMB **NGSCP**
QUEST
 NRAS NRASA
 MLH1 METHYLATION STUDIES MLH1M

THYROID - ALVERNO

BRAF BRAFP KRAS KRAMT
 COMPREHENSIVE NGS SOLID TUMOR PANEL WITH MSI/TMB **NGSCP**
QUEST
 NRAS NRASA
 RET/PTC REARRANGEMENT REAGF

CNS TUMORS - QUEST

1P19Q DELETION (FISH) FO19Q
 IDH 1/IDH2 IDH12
 MGMT PROMOTER METHYLATION ARUP 3005956
ALVERNO
 COMPREHENSIVE NGS SOLID TUMOR PANEL WITH MSI/TMB **NGSCP**

OTHER ADVANCED SOLID TUMORS - ALVERNO

COMPREHENSIVE NGS SOLID TUMOR PANEL WITH MSI/TMB **NGSCP**
 MSI FOR LYNCH SCREENING MSILN
 MSI FOR CHECKPOINT THERAPY MSICP
 PD-L1 (22C3) (KEYTRUDA) PDL1 MMR
QUEST
 PD-L1 NON-LUNG (28-8) (NIVOLUMAB), IHC NLUPD
 PD-L1 LUNG (28-8) (NIVOLUMAB), IHC PDLUN
 PD-L1 (SP142) NON-LUNG (ATEZOLIZUMAB), IHC 94047
 PD-L1 (SP263), IHC WITH INTERP 94007



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TEST MENU DETAILS

Genomic Testing Cooperative(GTC)

Solid Tumor Profile Plus

The Solid Tumor Profile Plus test combines the analysis of DNA with targeted transcriptome sequencing (RNA) to provide a comprehensive evaluation of cancer that includes detection of single nucleotide variation, copy number variation, gene expression levels and fusions irrespective of their partner genes. This includes testing of DNA abnormalities in 434 genes and targeted transcriptome analysis of 1408 genes. In addition, the test is designed to detect microsatellite instability (MSI), tumor mutation burden (TMB), homologous recombination repair (HRR) and homologous recombination deficiency (HRD). Other notable features include RNA levels of CTLA4, PD-L1, PD-L2, MET Exon 14 skipping, EGFRvIII, AR-V7 and DYPD gene polymorphism and prediction of toxicity to fluoropyrimidine therapy. The provided information helps in determining prognosis, designing a therapeutic approach and predicting response to immunotherapies, targeted therapies, and precision medicines.

Targeted transcriptome sequencing can also detect:

- Gene expression levels that correlate to immunophenotype
- Gene amplifications
- Exon skipping
- Alternative splicing
- Biomarker discovery

Liquid Trace™ Solid Tumor

Pan-Tumor Assay for Solid Tumors

GTC's Liquid Trace Solid Tumor is a pan-cancer highly sensitive test evaluating cfRNA and cfDNA providing highly informative data that can be used for diagnoses, evaluating the host immune response, and identifying biomarkers for predicting responses to various therapies.

Liquid Trace Solid Tumor may provide additional information not detected by tissue biopsies including information on the presence of germline mutations or mutations in the subclones not present in the tissue sample (heterogeneity).

Types of solid tumors Liquid Trace can detect:

- Lung
- Breast
- Thyroid
- Colon
- Oropharyngeal tumors
- Pancreatic
- Ovarian
- Prostate
- HPV
- Cancer of unknown primary (CUP)

Liquid biopsy in its current form is dependent on cfDNA analysis; this method likewise presents multiple challenges. These include variations in DNA shedding between tumors as well as low sensitivity (especially in early-stage cancer), difficulty in detecting fusion genes (i.e., chromosomal translocations leading to the expression of chimeric mRNA from two genes), and inability to reflect the numerous biological processes that modify RNA expression levels, such as alternative splicing, stability, and allele-specific methylation. The latter limitation is critically important as recent studies have shown that RNA testing provides another level of biological information regarding the tumor and its microenvironment.

The Benefits of cfRNA

RNA sequencing has proven to be more sensitive for some types of mutations. Cancer cells typically contain one copy of mutated DNA but numerous copies of RNA. This research is consistent with GTC's findings that cfRNA has increased sensitivity over cfDNA alone. More specifically, cfRNA allowed GTC's Liquid Trace to detect more mutations and fusions in hematologic and solid tumor samples, which may be undetected by conventional cfDNA.

Solid Tumor Profile Plus	Liquid Trace™ Solid Tumor
Genes: 434/1408	Genes: 284/1501
TAT: 7-10 Days	TAT: 5-7 Days
Indications	Indications
All solid tumors Fusions: ALK, ROS1, RET, NTRK1/2/3, and more. BRAF, CIC, EWSR1, PD-L1, MET exon 14 skipping and various alternative splicing, MET, HER2, EGFR, Gene amplifications, PIK3CA, PTEN, AKT1, RAS and HRD Cancer of unknown primary (CUP)	All solid tumors Chromosomal abnormalities, gene amplifications, HRR, MRD, Fusions: ALK, ROS1, RET, NTRK1/2/3, and more. BRAF, CIC, EWSR1, PD-L1, MET exon 14 skipping and various alternative splicing, MET, HER2, PIK3CA, PTEN, Gene amplifications, AKT1, RAS, HER2, MYC, EGFR, Cancer of unknown primary (CUP) HPV
Sample Type: FFPE	Sample Type: Peripheral blood
Sample Requirements	Sample Requirements
1 H&E slide and 6-8 unstained slides, 5-7 microns of tissue fixed with 10% NBF fixative	8-10 mL. EDTA tube is required RNA stability is 48-72 hours from blood draw. DNA stability is 7 days from blood draw. Samples received beyond 72 hours may include only DNA results.
Results Reported: DNA + RNA	Results Reported: DNA + RNA