MI PROFILE™
MOLECULAR INTELLIGENCE TUMOR REPORT

CARIS® LIFE SCIENCES

FINAL REPORT

PATIENT

Name: Patient, Name
Date of Birth:
Sex: Female
Case Number: TN14-111111
Diagnosis: Adenocarcinoma, metastatic, NOS

SPECIMEN INFORMATION

Primary Tumor Site: Sigmoid colon
Specimen Site: Abdomen, NOS
Specimen ID: ABC-123
Specimen Collected: XX-Mon-2015
Completion of Testing: XX-Mon-2015

ORDERED BY

Ordering Physician, MD
The Cancer Center
12345 Main Street
Springfield, YZ
(123) 456-7890

Bold Therapies = On NCCN Compendium® Therapies

✔ THERAPIES WITH **POTENTIAL BENEFIT** (PAGE 4)

cetuximab, **panitumumab**	PTEN, PIK3CA, NRAS, BRAF, KRAS	docetaxel, paclitaxel	TUBB3, PGP, TLE3	doxorubicin, epirubicin, liposomal-doxorubicin	PGP, TOP2A, Her2/Neu

★ **Indicates Clinical Trial Opportunity • 81 Targeted Therapy Trials** *(See Clinical Trials Connector™ on page 7 for details.)*

✘ THERAPIES WITH **POTENTIAL LACK OF BENEFIT** (PAGE 5)

capecitabine, **fluorouracil**	TS	dabrafenib, vemurafenib	BRAF	lapatinib	Her2/Neu
irinotecan	TOPO1	dacarbazine, temozolomide	MGMT	pemetrexed	TS
ado-trastuzumab emtansine (T-DM1), pertuzumab, trastuzumab	Her2/Neu	gemcitabine	RRM1		

? THERAPIES WITH **INDETERMINATE BENEFIT** (PAGE 6)

oxaliplatin	imatinib	vandetanib
carboplatin, cisplatin	nab-paclitaxel	

Therapies associated with potential benefit or lack of benefit, as indicated above, are based on biomarker results provided in this report and are based on published medical evidence. This evidence may have been obtained from studies performed in the cancer type present in the tested patient's sample or derived from another tumor type. The selection of any, all, or none of the matched therapies resides solely with the discretion of the treating physician. Decisions on patient care and treatment must be based on the independent medical judgment of the treating physician, taking into consideration all available information in addition to this report concerning the patient's condition in accordance with the applicable standard of care.

4610 South 44th Place, Suite 100 • Phoenix, AZ 85040 • (888) 979-8669 • Fax: (866) 479-4925

SUMMARY OF BIOMARKER RESULTS (SEE APPENDIX FOR FULL DETAILS)

Biomarker	Method	Result
ABL1	NGS	Mutation Not Detected
AKT1	NGS	Mutation Not Detected
ALK	NGS	Mutation Not Detected
Androgen Receptor	IHC	Negative
APC	NGS	Mutation Not Detected
ATM	NGS	Mutation Not Detected
BRAF	NGS	Mutation Not Detected
BRCA1	NGS	Mutation Not Detected
BRCA2	NGS	Mutation Not Detected
c-KIT	NGS	Mutation Not Detected
cMET	IHC	Positive
cMET	CISH	Not Amplified
cMET	NGS	Mutation Not Detected
CSF1R	NGS	Mutation Not Detected
CTNNB1	NGS	Mutation Not Detected
EGFR	IHC	Positive
EGFR	NGS	Mutation Not Detected
ER	IHC	Negative
FGFR1	NGS	Mutation Not Detected
FGFR2	NGS	Mutation Not Detected
FLT3	NGS	Mutation Not Detected
GNA11	NGS	Quantity Not Sufficient
GNAQ	NGS	Mutation Not Detected
GNAS	NGS	Mutation Not Detected
Her2/Neu	CISH	Not Amplified
Her2/Neu	IHC	Negative
Her2/Neu (ERBB2)	NGS	Mutation Not Detected
HRAS	NGS	Mutation Not Detected
IDH1	NGS	Mutation Not Detected
JAK2	NGS	Mutation Not Detected
KDR (VEGFR2)	NGS	Mutation Not Detected

Biomarker	Method	Result
KRAS	NGS	Mutation Not Detected
MGMT	IHC	Positive
MLH1	IHC	Positive
MPL	NGS	Quantity Not Sufficient
MSH2	IHC	Positive
MSH6	IHC	Positive
MSI	FA	Stable
NOTCH1	NGS	Mutation Not Detected
NRAS	NGS	Mutation Not Detected
PD-1 IHC	IHC	Positive
PDGFRA	NGS	Mutation Not Detected
PD-L1 IHC	IHC	Positive
PGP	IHC	Negative
PIK3CA	NGS	Mutation Not Detected
PMS2	IHC	Positive
PR	IHC	Negative
PTEN	IHC	Positive
PTEN	NGS	Mutation Not Detected
RET	NGS	Mutation Not Detected
RRM1	IHC	Positive
SMO	NGS	Mutation Not Detected
SPARC Monoclonal	IHC	Negative
SPARC Polyclonal	IHC	Negative
TLE3	IHC	Negative
TOP2A	IHC	Positive
TOPO1	IHC	Negative
TP53	NGS	Mutated | R248W
TS	IHC	Positive
TUBB3	IHC	Negative
VHL	NGS	Mutation Not Detected

IHC: Immunohistochemistry **FA:** Fragment Analysis **CISH:** Chromogenic *in situ* hybridization **NGS:** Next-Generation Sequencing

For Next-Generation Sequencing, a total of 35 genes were analyzed. The results above include genes most commonly associated with cancer and any additional mutations identified. No alterations were identified in 32 genes. For a complete list of genes tested, visit www.CarisMolecularIntelligence.com/profilemenu.

Biomarker Results continued on the next page. >

4610 South 44th Place, Suite 100 • Phoenix, AZ 85040 • (888) 979-8669 • Fax: (866) 479-4925

✔ THERAPIES WITH **POTENTIAL BENEFIT**

Therapies	Test	Method	Result	Value†	Clinical Association				
					Potential Benefit	Decreased Potential Benefit	Lack of Potential Benefit	Highest Level of Evidence*	Reference
cetuximab, panitumumab	BRAF	Next Gen SEQ	Wild Type		✔			I / Good	19#, 21#, 24#, 25#
	KRAS	Next Gen SEQ	Wild Type		✔			I / Good	22, 23, 26#, 27#, 28#, 29#, 30#, 31, 32#
	NRAS	Next Gen SEQ	Wild Type		✔			I / Good	21#, 22, 23
	PIK3CA	Next Gen SEQ	Wild Type		✔			I / Good	17#, 19#, 20#, 21#
	PTEN	IHC	Positive	1+ 100%	✔			II-2 / Good	16#, 17#, 18#, 19#
docetaxel, paclitaxel	PGP	IHC	Negative	1+ 5%	✔			II-3 / Fair	41, 42
	TLE3	IHC	Negative	2+ 10%		✔		II-2 / Good	43
	TUBB3	IHC	Negative	1+ 10%	✔			I / Good	37, 38, 39, 40
doxorubicin, epirubicin, liposomal-doxorubicin	Her2/Neu	CISH	Not Amplified	1.36		✔		I / Good	48, 49
	PGP	IHC	Negative	1+ 5%	✔			II-1 / Fair	44, 45
	TOP2A	IHC	Positive	2+ 40%	✔			I / Good	46, 47

* The level of evidence for all references is assigned according to the Literature Level of Evidence Framework consistent with the US Preventive Services Task Force described further in the Appendix of this report. The data level of each biomarker-drug interaction is the highest level of evidence based on the body of evidence, overall clinical utility, competing biomarker interactions and tumor type from which the evidence was gathered.

Evidence reference includes data from the same lineage as the tested specimen.

†Refer to Appendix for detailed Result and Value information for each biomarker, including appropriate cutoffs, unit of measure, etc.

4610 South 44th Place, Suite 100 • Phoenix, AZ 85040 • (888) 979-8669 • Fax: (866) 479-4925

✘ THERAPIES WITH **POTENTIAL LACK OF BENEFIT**

Therapies	Test	Method	Result	Value†	Clinical Association				
					Potential Benefit	Decreased Potential Benefit	Lack of Potential Benefit	Highest Level of Evidence*	Reference
ado-trastuzumab emtansine (T-DM1), pertuzumab, trastuzumab	Her2/Neu	CISH	Not Amplified	1.36			✔	I / Good	1, 2, 3, 4, 5, 6, 7, 8
	Her2/Neu	IHC	Negative	0+ 100%			✔	I / Good	1, 2, 3, 4, 5, 6, 7
capecitabine, fluorouracil, pemetrexed	TS	IHC	Positive	2+ 15%			✔	II-1 / Good	9, 10, 11
dabrafenib, vemurafenib	BRAF	Next Gen SEQ	Wild Type				✔	III / Good	33, 34
dacarbazine, temozolomide	MGMT	IHC	Positive	1+ 90%			✔	II-2 / Good	35, 36
gemcitabine	RRM1	IHC	Positive	2+ 90%			✔	I / Good	50
irinotecan	TOPO1	IHC	Negative	2+ 20%			✔	II-1 / Good	56#, 57#, 58#
lapatinib	Her2/Neu	CISH	Not Amplified	1.36			✔	I / Good	8, 59, 60
	Her2/Neu	IHC	Negative	0+ 100%			✔	I / Good	59, 60

* The level of evidence for all references is assigned according to the Literature Level of Evidence Framework consistent with the US Preventive Services Task Force described further in the Appendix of this report. The data level of each biomarker-drug interaction is the highest level of evidence based on the body of evidence, overall clinical utility, competing biomarker interactions and tumor type from which the evidence was gathered.

Evidence reference includes data from the same lineage as the tested specimen.

†Refer to Appendix for detailed Result and Value information for each biomarker, including appropriate cutoffs, unit of measure, etc.

4610 South 44th Place, Suite 100 • Phoenix, AZ 85040 • (888) 979-8669 • Fax: (866) 479-4925

? THERAPIES WITH **INDETERMINATE BENEFIT**

(Biomarker results do not impact potential benefit or lack of potential benefit)

Therapies	Test	Method	Result	Value†	Clinical Association				
					Potential Benefit	Decreased Potential Benefit	Lack of Potential Benefit	Highest Level of Evidence*	Reference
carboplatin, cisplatin, oxaliplatin	BRCA1	Next Gen SEQ	Mutation Not Detected				✔	II-2 / Good	12, 13, 14, 15
	BRCA2	Next Gen SEQ	Mutation Not Detected				✔	II-2 / Good	12, 14, 15
imatinib	c-KIT	Next Gen SEQ	Wild Type				✔	II-2 / Good	54, 55
	PDGFRA	Next Gen SEQ	Wild Type				✔	II-3 / Good	51, 52, 53
nab-paclitaxel	SPARC Monoclonal	IHC	Negative	1+ 70%			✔	II-2 / Good	61, 62
	SPARC Polyclonal	IHC	Negative	2+ 10%			✔	II-2 / Good	61, 62
vandetanib	RET	Next Gen SEQ	Wild Type					I / Good	63

* The level of evidence for all references is assigned according to the Literature Level of Evidence Framework consistent with the US Preventive Services Task Force described further in the Appendix of this report. The data level of each biomarker-drug interaction is the highest level of evidence based on the body of evidence, overall clinical utility, competing biomarker interactions and tumor type from which the evidence was gathered.

†Refer to Appendix for detailed Result and Value information for each biomarker, including appropriate cutoffs, unit of measure, etc.

4610 South 44th Place, Suite 100 • Phoenix, AZ 85040 • (888) 979-8669 • Fax: (866) 479-4925

CLINICAL TRIALS CONNECTOR™

For a complete list of open, enrolling clinical trials visit MI Portal to access the **Clinical Trials Connector** . This personalized, real-time web-based service provides additional clinical trial information and enhanced searching capabilities, including, but not limited to:

- Location: filter by geographic area
- Biomarker(s): identify specific biomarkers associated with open clinical trials to choose from
- Drug(s): search for specific therapies
- Trial Sponsor: locate trials based on the organization supporting the trial(s)

Visit www.CarisMolecularIntelligence.com to view all matched trials.

TARGETED THERAPY CLINICAL TRIALS (81)

Drug Class	Biomarker	Method	Investigational Agent(s)
Cell cycle inhibitors (3)	TP53	Next Gen SEQ	LY2606368, MK-1775
cMET-targeted therapy (14)	cMET	IHC	ABT-700, AMG-337, EMD 1214063, INC280, cabozantinib, crizotinib, tivantinib
EGFR monoclonal antibody (55)	EGFR	IHC	cetuximab
Immunomodulatory agents (9)	PD-1, PD-L1	IHC	AMP-224, MK-3475, lambrolizumab, lambrolizumab (MK-3475), nivolumab

( ) = represents the total number of clinical trials identified by the Clinical Trials Connector for the provided drug class or table.

4610 South 44th Place, Suite 100 • Phoenix, AZ 85040 • (888) 979-8669 • Fax: (866) 479-4925

To view the rest of the report, contact a Caris Molecular Intelligence™ representative today.

(888) 979-8669
MIclientservices@carisls.com

4610 South 44th Place, Suite 100 • Phoenix, AZ 85040 • (888) 979-8669 • Fax: (866) 479-4925