Patient Name	Patient ID	Age	Gender	Order #
SAMPLEREPORT,IHCO N	SA00057871	46	F	SA00057871
Ordering Phys CLIENT,CLIENT				**DOB** 06/10/1966
Client Order # SA00057871	**Account Information**			**Report Notes**
Collected 05/29/2013 00:00	C7028846-DLMP Rochester 3050 Superior Drive Rochester, MN 55901			
Printed 06/03/2013 10:53				

Test	Flag	Results	Unit	Reference Value	Perform Site*
MMR Protein, IHC Only, Tumor					
RECEIVED: 05/30/2013 15:24 **REPORTED:** 06/03/2013 09:29					
Specimen		Tissue-Tumor			MCR
Specimen ID		1061988			MCR
Order Date		03 Jun 2013 08:01			MCR
Reason For Referral					MCR
Possible diagnosis of Hereditary Nonpolyposis Colon Cancer (HNPCC)/Lynch syndrome. Evaluate tissue for evidence of defective DNA mismatch repair.					
Method					MCR
Immunohistochemical staining (IHC) is used to determine the presence or absence of protein expression for one or more of the following: MLH1, MSH2, MSH6, and PMS2. Lymphocytes and normal epithelium exhibit strong nuclear staining to serve as positive internal controls for staining of these proteins.					
MLH1 IHC		Performed.			MCR
MSH2 IHC		Performed.			MCR
MSH6 IHC		Performed.			MCR
PMS2 IHC		Performed.			MCR
Result					MCR
Tumor type: Colorectal adenocarcinoma IHC: Normal expression of MLH1, MSH2, MSH6, and PMS2					
Interpretation					MCR
The results of the IHC analysis suggest the presence of normal DNA mismatch repair function within the tumor. Thus, the likelihood that this individual has an inherited colon cancer syndrome due to defective DNA mismatch repair (HNPCC/Lynch syndrome) is reduced but not eliminated. These results reduce but do not completely rule out the possibility of defective DNA mismatch repair with in the tumor because approximately 5% of cases with defective mismatch repair do not show absence of protein expression by IHC. These results also do not exclude the possibility that this individual's tumor is due to an inherited defect in another gene not involved in DNA mismatch repair. A significant fraction of clinically defined HNPCC cases (30% or more) do not have defective DNA mismatch repair as the underlying genetic basis of their disease. Additionally, we cannot rule out the possibility that this individual or family has HNPCC/Lynch syndrome because this tumor could represent a sporadic occurrence. If there is a					

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strong personal or family history of HNPCC/Lynch syndrome related cancers for this individual or if this individual has multiple tumors, consider microsatellite instability (MSI) testing on this tumor or a different tumor to further evaluate the possible role of defective DNA mismatch repair for this individual or family.

A genetic consultation may be of benefit.

CAUTIONS:
Test results should be interpreted in context of clinical findings, family history, and other laboratory data. If results obtained do not match other clinical or laboratory findings, please contact the laboratory for possible interpretation. Misinterpretation of results may occur if the information provided is inaccurate or incomplete.

Laboratory developed test.

Reviewed By:	Jessica Rose Chavey	MCR
Release Date	03 Jun 2013 09:28	MCR

* Performing Site:

MCR	Mayo Clinic Laboratories - Rochester Main Campus 200 First St SW Rochester, MN 55905	Lab Director: