Laboratory Investigation Report

Patient Name	Centre
Age/Gender	OP/IP No/UHID
MaxID/Lab ID	Collection Date/Time
Ref Doctor	Reporting Date/Time

Immunocytochemistry

IHC-MMR*, Block

Immunohistochemistry Number:
IHC- 1447/24 (V- 12641/24, A18)

Specimen Type:
Uterus, cervix with bilateral ovaries with fallopian tubes

Clinical Data:
Left adnexal mass with Ca endometrium.

Histopathology Impression:
Synchronous endometrioid carcinoma of endometrium and left ovary.

Immunohistochemistry Test:

IHC - MMR (MLH-1, PMS 2, MSH 2, MSH 6).

Immunohistochemistry (IHC) Result:

Marker	***Result (Nuclear expression)***
MLH-1	Intact nuclear expression
PMS 2	Intact nuclear expression
MSH 2	Intact nuclear expression
MSH 6	Intact nuclear expression

Control:

Internal Control	Intact nuclear expression
External Control	Intact nuclear expression

Impression:

- **No loss of nuclear expression of mismatch repair (MMR) proteins, low probability of microsatellite instability - high (MSI-H).**

Application:
The primary application of IHC for MMR Protein is to screen for lynch syndrome / to identify patient at higher risk for additional colonic and extra-colonic tumours and with at - risk family members.

IHC Interpretation:

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Immunocytochemistry

- No loss of nuclear expression of mismatch repair (MMR) proteins: low probability of microsatellite instability–high (MSI-H) + _*

*- Loss of nuclear expression of MLH1 and PMS2: testing for methylation of the + _ MLH1 promoter and/or mutation of BRAF is indicated (the presence of a BRAF V600E mutation and/or MLH1 methylation suggests that the tumor is sporadic and germline evaluation is probably not indicated; absence of both MLH1 methylation and of BRAF V600E mutation suggests the possibility of Lynch syndrome, and sequencing and/or large deletion/duplication testing of germline MLH1 may be indicated)**

*- Loss of nuclear expression of MSH2 and MSH6: high probability of Lynch syndrome (sequencing and/or large deletion/duplication testing of germline + _ MSH2 may be indicated, and, if negative, sequencing and/or large deletion/duplication testing of germline MSH6may be indicated)**

*- Loss of nuclear expression of MSH6 only: high probability of Lynch syndrome (sequencing and/or large deletion/duplication testing of germline + _ MSH6 may be indicated)**

*Loss of nuclear expression of PMS2 only: high probability of Lynch syndrome (sequencing and/or large deletion/duplication testing of germline + _ PMS2 may be indicated)**

*- * There are exceptions to the above IHC interpretations. These results should not be considered in isolation, and clinical correlation with genetic counseling is recommended to assess the need for germline testing.*

- Reference : Colon and Rectum - Biomarkers Colon Biomarkers (v 1.2.0.1 - CAP Proctocol) and DNA mismatch repair 1.0.0.1

Notes:

a) Detection System: *Optiview DAB IHC Detection Kit - VENTANA (IVD).*

b) Primary Antibodies:

1) MLH-1 – anti-MLH-1 (Clone M1) Mouse Monoclonal Primary Antibody, IVD VENTANA (Ref-790-4535).

2) MSH 2 – MSH-2 (Clone G219-1129), Mouse Monoclonal Antibody, VENTANA IVD (Ref-760-4265).

3) MSH 6 – CONFIRM anti-MSH6, Clone 44, Mouse Monoclonal Antibody, IVD VENTANA, (Ref-790-4455).

4) PMS 2 – PMS2, Clone EPR3947, Rabbit Monoclonal Antibody, IVD VENTANA (Ref-760-4531).

Kindly correlate with clinical findings

***** End Of Report *****

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