UKAS MEDICAL 9059

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Microsatellite Instability Status Report

Patient Details		Source Information		Sample Information	
Lab Number:	MP19- XXXX	Requester Ref:		Date Received:	02/01/2019
Surname:	Atient	Surgical No.:	18-1154-6	Primary Tumour Site:	Colorectal
Forename:	Patricia	Sample Type:	FFPE Block	Tumour Subtype:	Adenocarcinoma
D.O.B. (D/M/Y)	03/03/1942	Consultant:	Smith	Tissue Sample Site:	Colorectal
Gender:	Female	Hospital:	Hospital	% Tumour (Whole):	51-75%
				% Tumour (Selected):	

Result

(MSI-H) MicroSatellite Instability - High

5 **Unstable Markers Detected**

Evidence of microsatellite instability was detected in two or more (of five) microsatellite markers.

Comment:

A high-level of MicroSatellite Instability (MSI-H) was observed in this tumour specimen, with evidence of instability in 2 or more of 5 microsatellite repeat markers. MSI-H status is indicative of defective DNA mismatch repair (MMR). However, this test does not discriminate between acquired (e.g. somatic MLH1 gene silencing by promotor hypermethylation) or inherited (e.g. Lynch Syndrome) causes of MMR, nor does it indicate which of the MMR genes may be affected, and further testing should be considered if appropriate. Additionally, MSI-H status has been also associated with increased sensitivity to immune checkpoint inhibitor (e.g. pembrolizumab) therapy in advanced solid tumours.

Approved by:
Signature:
Name: Dr F. Irst **Date:** 08/01/2019
Job Title:
Clinical Scientist ✓
Consultant Histopathologist
BMS (senior)

Checked by:
Signature:
Name: S. Econd **Date:** 08/01/2019
Job Title:
BMS ✓
Trainee Clinical Scientist / BMS
Molecular Biology, PhD

This assay was performed using the Promega MSI Analysis System (Version 1.2), running on an ABI 3500 Genetic Analyser (in fragment analysis mode) and the data visualised using ABI GeneMapper v5 with bin files supplied by Promega. The assay includes fluorescently labelled primers for co-amplification of seven markers, including five mononucleotide repeat markers (BAT-25, BAT-26, NR-21, NR-24 and MONO-27) and two pentanucleotide repeat markers (Penta C and Penta D). The mononucleotide markers are used for MSI determination and the pentanucleotide markers are used to detect potential sample misindentification or contamination.