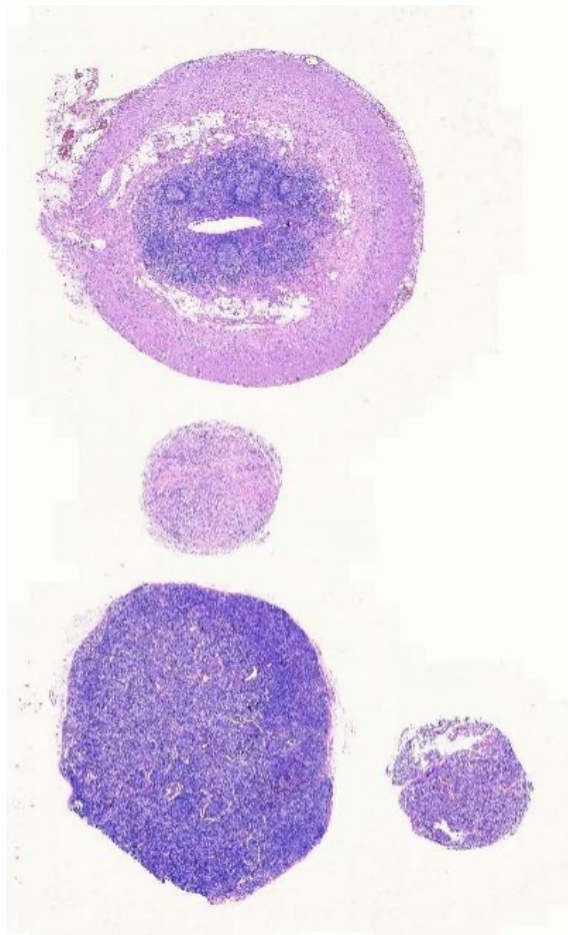
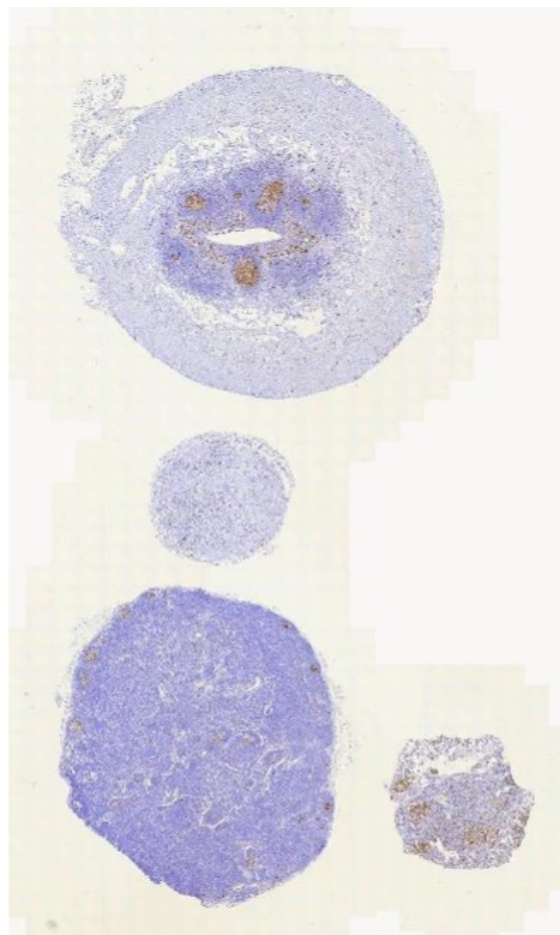


MIB-1 (Ki-67)*HE staining in scanner view.**Immunostaining, scanner view***Provided sections in this run:**

TISSUE	PROPORTION	INTENSITY
Appendix	More than 90% of the cells in germinal center. >90% of the cells lining the crypts.	Intense
Breast carcinoma	20% to 30% of the tumor cells	Intense
Lymph node	Germinal center, especially in subcapsular region	Intense
Tonsil	>90% of cells in germinal center and approximately 30% cells in the interfollicular region. Basal layer of the squamous epithelium.	Intense



Performance characteristic of the group:

N	39
MEDIAN OVERALL SCORE	60
AVERAGE OVERALL SCORE	55

Criteria for assessment:

	Optimum	Good	Borderline	Poor
Overall score	>59	55-59	49-54	<49

Break up of results

Result	Participants
Optimum	25
Good	6
Borderline	1
Poor	7

Break up of results based on technique

Result Technique	Optimum	Good	Borderline	Poor	Total
Manual	13	4	0	3	20
Automated Ventana Bench Mark	3	0	0	0	3
Automated Ventana Bench Mark Ultra	0	1	0	0	1
Automated Ventana Bench Mark XT	1	1	0	2	4
Automated, Ventana Benchmark GX	1	0	1	0	2
Automated	1	0	0	2	3
Details NA	6	0	0	0	6



Break up of results based on the vendors

Vendor	Result	Optimum	Good	Borderline	Poor	Total
PathnSitu		4	3		4	11
Master diagnostica		2	1		1	4
Ventana		3		1	1	5
Biocare		2				2
Biogenex		2				2
Cell marque, 275R-15			1			1
DAKO		2			1	3
Diagnostic Biosystems		1				1
Quartett		2				2
RO9210NA			1			1
Roche		1				1
Thermo		1				1
ZYTOMED, BRB040						0
NA		5				5

Clones used in the run by participants

Clone	Participants
Mib-1	14
30-9	4
GM001	3
QR015	2
4B5	1
RMPD004	1
SP3	1
SP6	7
NA	6



Break up of results based on the clones used

Clone	Result	Optimum	Good	Borderline	Poor	Total
Mib-1		5	3	1	5	14
30-9		3			1	4
GM001		2	1			3
QR015		2				2
4B5		1				1
RMPD004		1				1
SP3		1				1
SP6		4	2		1	7
NA		6				6

Break up of results based on format

Format	Result	Optimum	Good	Borderline	Poor	Total
Concentrated.		3	1			4
RTU		17	5	1	7	30
NA		5				5

Break up of results based on temperature of dewaxing

Dewax Minutes	Result	Optimum	Good	Borderline	Poor	Total
>75		5		1	3	9
71-75		1	1			2
66-70		4	1			5
60-65		8	3		3	14
55-59		2				2
37			1			1
RT					1	1
NA		5				5



Break up of results based on pH of retrieval buffer

pH	Result	Optimum	Good	Borderline	Poor	Total
6.0-6.9		1	1		1	3
7.0-8.0		1		1	1	3
8.1-9.0		16	5		5	26
>9.0		1				1
NA		5				5

Break up of results based on incubation time of primary antibody

Time in minutes	Result	Optimum	Good	Borderline	Poor	Total
15-30		6	1		1	8
31-45		5	2		2	9
46-60		6	3	1	4	14
>60		1				1

General observations in Run 17



VARIABLE	1	2	3
Technique	Automated, Ventana Benchmark GX	Manual	Automated Ventana Bench Mark
Clone	1E2	PgR636	1E2
Vendor	VENTANA BENCHMARK GX, H36443	Dako, 11405263	Ventana, 790-4296
Format	RTU	RTU	RTU
Batch/Year	7904296, 2022	Jul-22	BATCH NUMBER -H13339
Expiry	2024	Jul-23	11-05-2023
Dewaxing temperature	75 degree celcius	65° C	75°C
Retrieval	HIER	HIER	HIER
Enzyme	NA	N/A	NA
HIER	company system - cell conditioning 1 - CC1	PT link, DAKO	COMPANY SYSTEM -VENTANA BENCHMARK XT
Peak T and Time	95 degrees and 44 mins	97 degree centigrade, 15 min	PEAK TEMPERATURE -100°C TIME- 30 MINUTES
Peak Pressure and Time	NA	N/A	NA
Retrieval Buffer	Tris EDTA buffer	DAKO, target retrieval buffer	COMPANY PROVIDED -CELL CONDITIONING(CC1)
pH	7.8	9	8.5
Blocking	3% Hydrogen peroxide	DAKO, 10 minutes	ULTRA VIEW INHIBITOR-4 MINUTES
Wash sol	TRIS based buffer solution	TRIS Buffer SALINE	REACTION BUFFER
Dilution of RTU	NO	No	10 x
Dilution of conc	NA	N/A	RTU
Diluent	NA	N/A	NA
Inc time of Primary	60 mins	1 hour	28 MIN
Detection	46-60	46-60	15-30
Cat No	Ultraview universal DAB detection kit	Polymer based	POLYMER BASED SYSTEM

General observations in Run 17

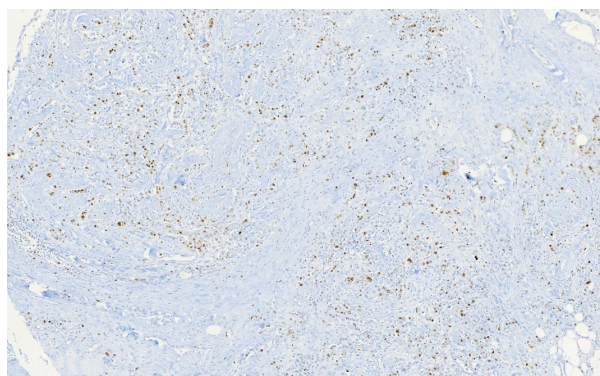


VARIABLE	1	2	3
Inc time of Sec	Ultraview universal DAB detection kit, Ventana benchmark GX,	Envision FLEX, high PH link, DAKO 41424210: Expiry- 31.03.2023	DETECTION SYSTEM -ULTRA VIEW COMPANY-ROCHE CATALOGUE NUMBER-760-500 BATCH NUMBER-H33655 EXPIRY-11-11-2023
Chro-substrate	16 mins	30 minutes	8 MINUTES
Post-treatment	8 mins	10 minutes	8 MINUTES
Counterstain	copper, 5 mins	No	COPPER SULPHATE-4 MINUTES

Turn overleaf for images



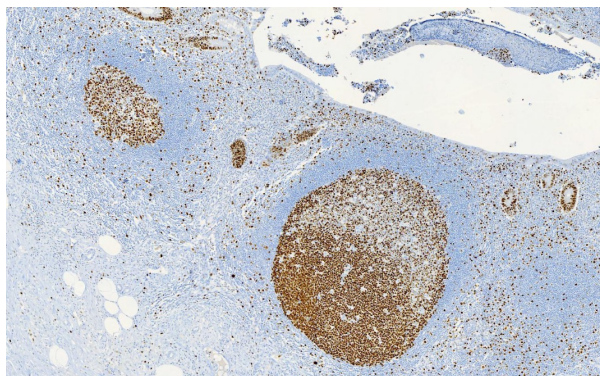
Inadequate staining of breast carcinoma due to inadequate epitope retrieval and use of suboptimal antibody.



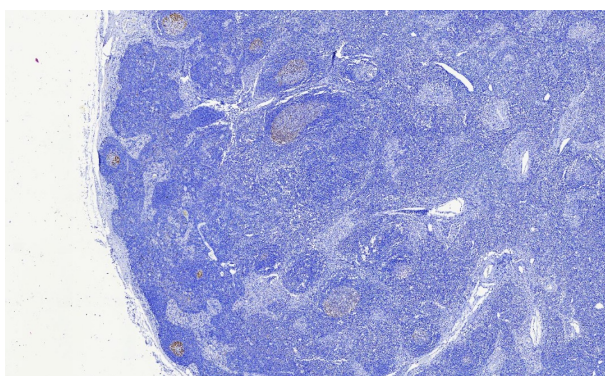
Optimal staining protocol that stains good number of tumor cells in the same case.



Inferior staining reaction in appendix due to suboptimal epitope retrieval and/or use of inferior antibody

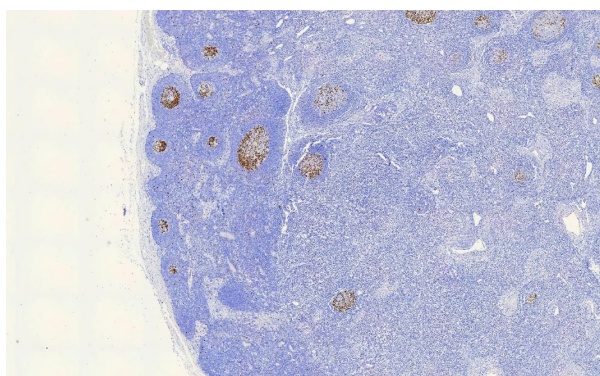


Optimum staining of epithelial and lymphoid cells of appendix by a participant.



Inferior staining of lymph node using a particular clone

:



Same tissue and protocol setting but using a superior clone