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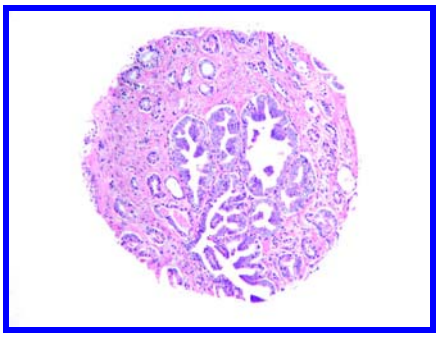
MILLIPORE SELECT TISSUE ARRAY: TMA2004-4

Top 4 Human Cancers and 4 Normal Tissues (2.0mm Cores, 56 Tissues Maximum)

CATALOG NUMBER:	TMA2004-4
QUANTITY:	TMA2004-4 (Four Unstained Slides, and One H&E Stained Slide)
INTENDED USE:	For Research Use Only



Prostate Carcinoma from a Trans Urethral Resection Prostate (TURP). H&E Staining*

Hematoxylin & Eosin Staining

Millipore Select Tissue Arrays are intended for laboratory research use only. The individual tissues were fixed in neutral buffered formalin and embedded in paraffin. Tissue identification and diagnosis was performed by certified pathologists. Tissue cores were removed from their paraffin blocks and relocated into a new recipient paraffin block, in an array pattern, using Millipore's Advanced Tissue Arrayer (ATA-100). The location of the tissues in the array can be found on the next page of this product insert.

* Representative staining pattern only. Not for Diagnostic Use; User results may vary.

SPECIFIC TISSUES:
Four Cancer Types (Breast, Prostate, Lung, and Colon)
- Five Different Cases of each Cancer
- Two 2.0mm Cores of each Case

Four Normal Tissues (Breast, Prostate, Lung, and Colon)
- Two Different Cases of each Tissue
- Two 2.0mm Cores of each Case

TISSUE HETEROGENITY: Tissues by their nature have three-dimensional heterogeneity. The tissue cores used in constructing this tissue array may not be homogenous in their cellular constituents. Because of this, we insert multiple tissue cores from multiple cases. This strategy helps in obtaining representative samples from each case. For an IHC protocol, see page 3 of this product insert.

APPLICATIONS: Routine Histology Procedures including ImmunoHistoChemistry (IHC) and *In Situ* Hybridization (ISH). For IHC, this Tissue Array has been optimally prepared for use with Millipore's IHC Select™ Detection Reagents.

FORMAT: Formalin-fixed, paraffin-embedded. Four micron thick sections were air dried onto positively charged 75 micron Capillary Gap microscope slides. After air drying, the sections were coated with paraffin to protect the tissues from oxidation. These slides may be stained manually, and on all automated IHC instruments.

STORAGE/ HANDLING/STABILITY: Store in a cool laboratory environment, in suitable microscope slide containers. Product is stable for 18 months under these storage conditions.

Top 4 Human Cancers and 4 Normal Tissues (2.0mm Cores, 56 Tissues Maximum)

Top of Slide (White Painted Surface)

A1-1 Breast Ca.	B1-1 Colon Ca.	C1-1 Lung Ca.	D1-1 Prost Ca.	E1-1 Brst Nm.	F1-2 Lung Nm.
A2-1 Breast Ca.	B2-1 Colon Ca	C2-1 Lung Ca.	D2-1 Prost Ca.	E2-1 Brst Nm.	F2-2 Lung Nm.
A3-2 Breast Ca.	B3-2 Colon Ca	C3-2 Lung Ca.	D3-2 Prost Ca.	E3-2 Brst Nm.	F3-1 Prost Nm.
A4-2 Breast Ca	B4-2 Colon Ca	C4-2 Lung Ca.	D4-2 Prost Ca.	E4-2 Brst Nm.	F4-1 Prost Nm.
A5-3 Breast Ca.	B5-3 Colon Ca	C5-3 Lung Ca.	D5-3 Prost Ca.	E5-1 Colon Nm	F5-2 Prost Nm.
A6-3 Breast Ca.	B6-3 Colon Ca	C6-3 Lung Ca.	D6-3 Prost Ca.	E6-1 Colon Nm	F6-2 Prost Nm.
A7-4 Breast Ca.	B7-4 Colon Ca	C7-4 Lung Ca.	D7-4 Prost Ca.	E7-2 Colon Nm	
A8-4 Breast Ca.	B8-4 Colon Ca	C8-4 Lung Ca.	D8-4 Prost Ca.	E8-2 Colon Nm	
A9-5 Breast Ca.	B9-5 Colon Ca	C9-5 Lung Ca.	D9-5 Prost Ca.	E9-1 Lung Nm.	
A10 -5 Breast Ca.	B10 -5 Colon Ca	C10-5 Lung Ca.	D10-5 Prost Ca.	E10-1 Lung Nm.	

LEGEND:

Brst Nm. = Breast Normal, Prost. Ca.= Prostate Cancer
Prst Nm. = Prostate Normal

REFERENCES:

1. Battifora H (1986). The multitumor (sausage) tissue block: Novel method for immunohistochemical antibody testing. Lab Invest 55:244- 248.
2. Battifora H and Mehta P (1990). The checkerboard tissue block: An improved multitissue control block. Lab Invest 63:722-724.
3. Kononen J, Bubendorf L, Kallioniemi A, Barlund M, Schraml P, Leighton S, Torhorst J, Mihatsch MJ, Sauter G, Kallioniemi OP. Tissue microarrays for high-throughput molecular profiling of tumor specimens. Nat Med 1998 Jul;4(7):844-7
4. Moch H, Schraml P, Bubendorf L, Mirlacher M, Kononen J, Gasser T, Mihatsch MJ, Kallioniemi OP, Sauter G. High-throughput tissue microarray analysis to evaluate genes uncovered by cDNA microarray screening in renal cell carcinoma. Am J Pathol 1999 Apr;154(4):981-6
5. Battifora H, Alsabeh R, Jenkins KA, Gown AM: "Epitope Retrieval (Unmasking) in Immunohistochemistry". Advances in Pathology and Laboratory Medicine, vol. 8, 101-118, 1995

IHC Protocol Outline (for a more detailed protocol, and IHC reagents, see www.Millipore.com and look at the IHC Select™ Detection Reagents Product Insert). The IHC Select™ Primary Antibodies, Detection Reagents, and Ancillary Products have been optimized for staining formalin-fixed, paraffin-embedded tissues.

1. Prior to beginning the removal of the paraffin from the tissue section on the slide (deparaffinization), bake the slides in a 60°C oven for 1-2 hours. Allow the slide to come to room temperature before beginning deparaffinization.
2. Deparaffinize by immersing the slides in Xylenes (4 x 5min.), 100% Ethanol (2 x 2min.), 70% Ethanol (2 x 2min.), 30% Ethanol (2 x 2min.), and Distilled or Deionized Water (2 x 2min.).
3. If the Target you are trying to detect (e.g., Vimentin) requires Tissue Pretreatment (i.e., Epitope Retrieval, sometimes called Antigen Retrieval) do it now. For example, pretreat with Citrate Buffer pH 6.0 using a steamer, autoclave, pressure cooker, etc. [5].
4. Rinse sections with TBS (5 x 30 seconds).
5. Incubate sections with 3% Hydrogen Peroxide for 10 minutes.
6. Rinse sections with TBS (5 x 30 seconds).
7. Incubate sections with Blocking Reagent (5 minutes).
8. Rinse sections with TBS (1 x 30 seconds).
9. Incubate sections with Primary Antibody OR a Negative Control Reagent (if using a prediluted IHC Select™ Primary Antibody, incubate for 10 minutes; for example Anti-Vimentin a mouse IgG monoclonal; other antibodies should be titered before deciding on a specific concentration and incubation time).
10. Rinse sections with TBS (5 x 30 seconds).
11. Incubate sections with Biotinylated Secondary Antibody (10 minutes; for example Biotinylated Goat Anti-Mouse IgG).
12. Rinse sections with TBS (5 x 30 seconds).
13. Incubate sections with Streptavidin-Enzyme Conjugate (10 minutes; for example SA-HRP).
14. Rinse sections with TBS (5 x 30 seconds).
15. Incubate sections with Chromogen (10 minutes; for example DAB).
16. Rinse sections with TBS (5 x 30 seconds).
17. Incubate sections with Counter Stain (1 minute; for example Hematoxylin).
18. Rinse sections with TBS (5 x 30 seconds).
19. Rinse sections with distilled or deionized water (hold here until next step).
20. Cover slip using an aqueous mounting media, or dehydrate through a graded series of alcohols, immerse in Xylenes and cover slip using a permanent mounting media.
21. View through a transmitted light microscope.
22. See the IHC Select™ Detection Reagents Product Insert for assistance in Quality Control and interpretation of results.

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TMA2004-4/04-21-11/JS