



CHEMICON SELECT TISSUE ARRAY: TMA2901-4

Normal Mouse Tissue (2.0mm Cores, 60 Tissues Maximum)

CATALOG NUMBER:	TMA2901-4	 <p>Mouse Eye 2mm Core H&E Staining*</p>	 <p>Hematoxylin & Eosin Staining</p>
QUANTITY:	TMA2901-4 (Four Unstained Slides, and One H&E Stained Slide)		
INTENDED USE:	For Research Use Only		

Chemicon 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 Chemicon'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: Normal Tissues (Mouse)
Thirty Different Types of Tissue
Two 2.0mm Cores of each Type

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.

APPLICATIONS: Routine Histology Procedures including ImmunoHistoChemistry (IHC) and *In Situ* Hybridization (ISH). For IHC, this Tissue Array has been optimally prepared for use with Chemicon's IHC SelectTM Detection Reagents. For an IHC protocol, see page 3 of this product insert.

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.

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Top of Slide (Label End)

A1 Adrenal	B1 Breast	C1 Fall. Tube	D1 Lymph Node	E1 Pituitary	F1 Stomach
A2 Adrenal	B2 Breast	C2 Fall. Tube	D2 Lymph Node	E2 Pituitary	F2 Stomach
A3 Bladder	B3 Colon	C3 Heart	D3 Muscle	E3 Prostate	F3 Thymus
A4 Bladder	B4 Colon	C4 Heart	D4 Muscle	E4 Prostate	F4 Thymus
A5 B. M.	B5 Diaphragm	C5 Kidney	D5 Ovary	E5 Skin	F5 Thyroid
A6 B. M.	B6 Diaphragm	C6 Kidney	D6 Ovary	E6 Skin	F6 Thyroid
A7 Cerebellum.	B7 Lg Intest	C7 Liver	D7 Pancreas	E7 Spinal Cd	F7 Ureter
A8 Cerebellum	B8 Lg Intest	C8 Liver	D8 Pancreas	E8 Spinal Cd	F8 Ureter
A9 Cerb Crtx	B9 Eye	C9 Lung	D9 Parathyroid	E9 Spleen	F9 Uterus
A10 Cerb Crtx	B10 Eye	C10 Lung	D10 Parathyroid	E10 Spleen	F10 Uterus

LEGEND:

B. M. = Bone Marrow
 Cerb Crtx = Cerebral Cortex
 Fall. Tube = Fallopean Tube
 Spinal Cd = Spinal Cord
 Lg Intest = Large Intestine
 Sm Intest = Small Intestine

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 athol* 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

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IHC Protocol Outline (for a more detailed protocol, and IHC reagents, see www.chemicon.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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