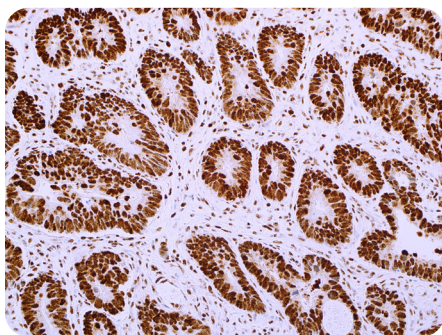## Cell Marque™ Tissue Diagnostics
# Winter Antibody Launch

MLH1 (M1) — Coming Soon

MLH1 is a mismatch repair protein involved in recognition and repair of spontaneous errors that arise during cellular DNA replication. The inactivation of MLH1 results in impaired DNA mismatch repair caused by deficient MLH1 expression. This can be observed in several malignancies, not the least of which are colorectal carcinoma and endometrial carcinoma. Anti-MLH1 is useful in the identification of the MLH1 protein in normal and neoplastic tissues and in identifying loss of MLH1 expression in tumors with a dysfunctional DNA mismatch repair system.[1-3]

References: 1. Lanza G, et al. *Mod Pathol.* 2002; 15:741-749. 2. Wright CL, et al. *Am J Surg Pathol.* 2003; 27:1393-1406. 3. Rigau V, et al. *Arch Pathol Lab Med.* 2003; 127:694-700.

| Description	Cat. No.
0.1 mL concentrate	**285M-24**
0.5 mL concentrate	**285M-25**
1.0 mL concentrate	**285M-26**
1.0 mL predilute	**285M-27**
7.0 mL predilute	**285M-28**
25.0 mL predilute	**285M-20**
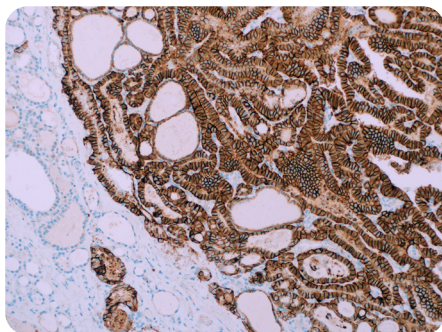
TROP2 (EP431)

Trophoblast antigen 2 (TROP2) is a transmembrane glycoprotein that transduces intracellular calcium signals.[1] The overexpression of TROP2 has been linked to tumor progression due to its involvement in the regulation of multiple vital cell processes including migration, proliferation, and invasion.[2] TROP2 exhibits strong, diffuse staining in papillary thyroid carcinoma, while staining in other thyroid lesions, such as follicular thyroid adenomas and carcinomas, is limited to rare, focal, or scattered cells.[3,4] An increase in TROP2 expression has also been observed in colorectal carcinomas and ovarian serous carcinomas compared to non-neoplastic ovary and colon.[5]

References: 1. Ripani E, et al. *Int J Cancer.* 1998;76:671-676. 2. Wu B, et al. *Exp Ther Med.* 2017;14:1947-1952. 3. Bychkov A, et al. *Pathology.* 2016;48:425-433. 4. Liu H, et al. *Appl Immunohistochem Mol Morphol.* 2017;25:525-533. 5. Stephan LP, et al. *J Histochem Cytochem.* 2011;59:701-710.

| Description	Cat. No.
0.1 mL concentrate	**465R-14**
0.5 mL concentrate	**465R-15**
1.0 mL concentrate	**465R-16**
1.0 mL predilute	**465R-17**
7.0 mL predilute	**465R-18**
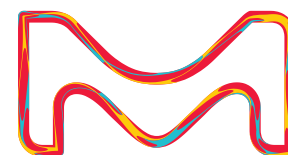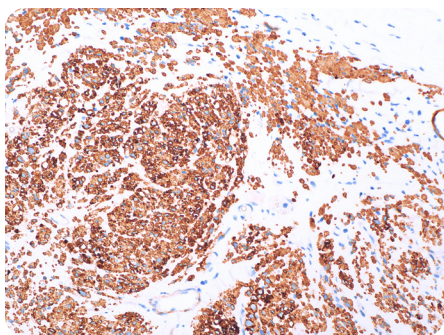
h-Caldesmon (hHCD)

Caldesmon is a protein that facilitates the regulation of cellular contraction through complexing with calmodulin, tropomyosin, and actin. Its high molecular weight isoform (h-caldesmon) has been identified to have restricted expression in visceral and vascular smooth muscle cells. In particular, strong expression of h-caldesmon has been observed in non-neoplastic uterine myometrium while being entirely absent in the endometrial layer.[1] In spindle cell tumor pathology, overlapping immunohistochemical staining profiles between smooth muscle cells and myofibroblastic cells has not allowed for reliable identification of true smooth muscle tumors. Immunohistochemical detection of h-caldesmon has been demonstrated to aid in the distinguishing smooth muscle tumors, such as leiomyoma and leiomyosarcoma from myofibroblastic lesions, such as inflammatory myofibroblastic tumors and fibromatoses.[2]

References: 1. Nucci MR, et al. *Am J Surg Pathol.* 2001; 25:455-463. 2. Ceballos KM, et al. *Am J Clin Pathol.* 2000; 114:746-753.

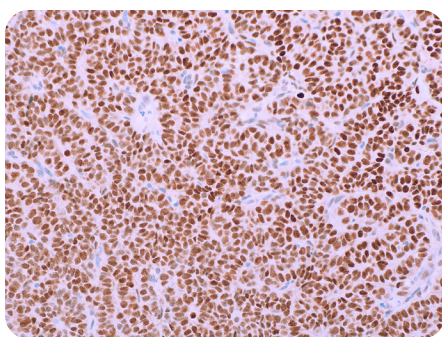| Description	Cat. No.
0.1 mL concentrate	451M-14
0.5 mL concentrate	451M-15
1.0 mL concentrate	451M-16
1.0 mL predilute	451M-17
7.0 mL predilute	451M-18
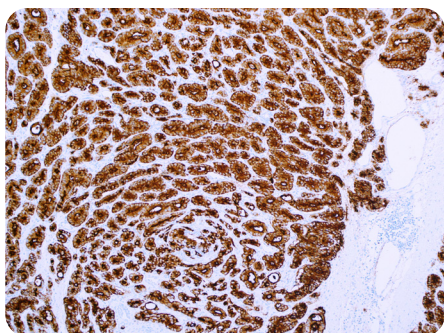
PSMA (EP192)

Prostate-specific membrane antigen (PSMA) is a type II transmembrane glycoprotein with enzymatic activity.[1,2] PSMA is expressed in normal prostate epithelial cells as well as prostate neoplastic cells. It has been demonstrated that PSMA expression is increased in prostate cancer and is correlated with disease progression.[2] Although highly sensitive and specific for prostate, PSMA also labels a subset of non-prostate tissues, including the small intestine and kidney.[2,3] PSMA is useful for identifying metastatic prostate carcinoma[4] and distinguishing prostate carcinoma from urothelial carcinoma.[5]

References: 1. Ghosh A, et al. *J Cell Biochem.* 2004; 91:528-39. 2. Chang SS. *Rev Urol.* 2004; 6:S13-8. 3. Silver DA, et al. *Clin Cancer Res.* 1997; 3:81-5. 4. Bernacki KD, et al. *Diagn Cytopathol.* 2014; 42:570-5. 5. Oh WJ, et al. *J Pathol Transl Med.* 2016; 50:345-54.

Description	Cat. No.
0.1 mL concentrate	327R-14
0.5 mL concentrate	327R-15
1.0 mL concentrate	327R-16
1.0 mL predilute	327R-17
7.0 mL predilute	327R-18

CELL MARQUE

RabMAb®

Technology from Abcam

Merck, with our Cell Marque™ brand, in a proud partnership with Abcam, exclusively offers a robust portfolio of highly specific and sensitive rabbit monoclonal antibodies created with their patented RabMAb® technology.

SF-1 (EP434)

This product is intended for research use only. Not for use in diagnostic procedures.

Description	Cat. No.
0.1 mL concentrate	462R-14-RUO
1.0 mL concentrate	462R-16-RUO
1.0 mL predilute	462R-17-RUO
7.0 mL predilute	462R-18-RUO
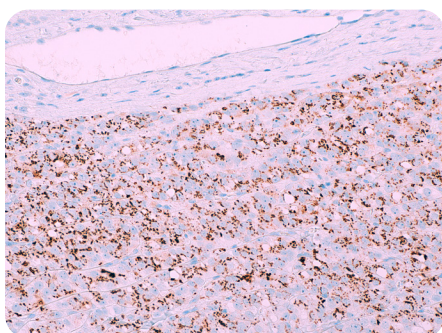
Prostein (EP381)

This product is intended for research use only. Not for use in diagnostic procedures.

Description	Cat. No.
0.1 mL concentrate	450R-14-RUO
1.0 mL concentrate	450R-16-RUO
1.0 mL predilute	450R-17-RUO
7.0 mL predilute	450R-18-RUO

To learn more, visit
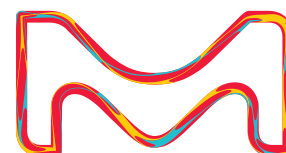**cellmarque.com**

Intended Use: The products herein are intended for laboratory use in the detection of their respective proteins in formalin-fixed, paraffin-embedded tissue stained in qualitative immunohistochemistry (IHC) testing. These products cannot be used for cancer diagnosis or decisions regarding treatment pathways.

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