



## HISTOPRIME<sup>®</sup>

**CatNo E062**

## Cytokeratin 20

Lot: See Label

Storage: +2 to +8 °C

Exp. Date: See Label

## Monoclonal Antibody against Cytokeratin 20

### Specificity

Part of the cytoskeleton of epithelia and cells derived from them consists of cytokeratins. These interrelated polypeptides are divided into two groups, namely acidic and basic peptides. To date, 20 cytokeratins have been characterized in more detail and their expression in different cell types has been studied. The molecular weights range from 40 to 69 kDa. Each epithelial tissue shows a specific and stable expression pattern of cytokeratins.

A nomenclature of cytokeratins used for immunohistochemical studies was outlined by Moll et al. (1982). Cytokeratin 20 was discovered and characterized at a later date (Moll et al., 1990 and 1992).

### Contents

Reagents sufficient for about 50-100 tissue sections  
1 dropper bottle **HISTOPRIME<sup>®</sup> Cytokeratin 20** (Bottle, 5 ml)

### Normal Tissues

The monoclonal antibody E062 reacts with cytokeratin 20 in epithelia of the intestine, gastric wall, paracrine cells of the pylorus, urothelium, and Merkel cells of the epidermis. Most other epithelia, including epithelia of the mammary glands, are CK-20 negative.

### Abnormal Tissues

The expression of CK-20 varies with the type of carcinoma. Neoplasms that express CK-20 are always derived from tissues that also normally produce CK20. Colon rectal carcinomas regularly produce CK-20, while this is true to a lesser extent for adenocarcinomas of the stomach. It is also expressed by adenocarcinomas of the gallbladder, bile ducts, pancreas, and mucinous ovarian carcinomas. Particularly intense staining is obtained in Merkel cell carcinomas of the skin. Adenocarcinomas of the breast, lung, endometrium, and non-mucinous tumors of the ovary are usually negative. Also negative are small cell lung carcinomas (SCLC) and endocrine tumors of the intestinal tract and pancreas.

E062-230109-1/2





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### Characterization

<b>Antigen</b>	Cytoskeletal proteins from microvilli of human duodenal mucosa.
<b>Specificity</b>	Human cytokeratin 20 (according to Moll et al.)
<b>Abnormal Tissues</b>	Differential diagnosis of intestinal carcinomas and their metastases Merkel cell carcinomas.
<b>Clone</b>	Ks 20.8
<b>Isotype</b>	Mouse IgG2a, kappa
<b>Pretreatment</b>	Deparaffinized sections with Pronase 0.1% (LINARIS CatNo E110) for 10 minutes at RT or HistoSafe Enhancer Unmasking Solution (LINARIS CatNo E7000) for 10 minutes at 96-100 °C in a water bath.
<b>Incubation Period</b>	1 hour by room temperature
<b>Control Tissue</b>	Appendix or colon carcinoma
<b>Application</b>	Ready-to-use in PBS, BSA, NaN <sub>3</sub> (0.09%) pH 7.4(*) suitable on cryostat sections and on formalin-fixed, paraffin-embedded tissue sections.
<b>Recommended Secondary Reagents</b>	<b>Alkaline Phosphatase</b> Vectastain <sup>®</sup> ABC Mouse IgG (Vector CatNo AK-5002) and Substrate-Kit e.g. Vector <sup>®</sup> Red (Vector CatNo SK-5100). <b>Peroxidase</b> Vectastain <sup>®</sup> ABC-Elite Mouse IgG (Vector CatNo PK-6102) and Peroxidase Substrate-Kit e.g. DAB (LINARIS CatNo E108) or HistoGreen (LINARIS CatNo E109).

### References

1. Moll R., Franke W. W., Schiller D. L., Geiger B., and Krepler R. The catalog of human cytokeratin polypeptides. Pattern of expressions of specific cytokeratins in normal epithelia, tumors and cultured cells. Cell 31; 11-24 (1982)
2. Moll R., Schiller D. L., Franke W. W. Identification of protein IT of the intestinal cytoskeleton as a novel type I cytokeratin with unusual properties and expressions patterns. Cell Biol. 111; 567-580 (1990)
3. Moll R., Löwe A., Läufer J., and Franke W. W. Cytokeratin 20 in human carcinomas. A new histodiagnostic marker detected by monoclonal antibodies. Am. J. Pathol. 140; 427-447 (1992)

**Differential identification is aided by the results from a panel of antibodies. Interpretation must be made within the context of the patient's clinical history and other diagnostics tests by a qualified pathologist.**

**(\*)Note**                      **E062 contains Sodium Azide; take adequate precautions!**

E062- E062-230109-2/2

**For Research use only. Not for use in diagnostic procedure**

