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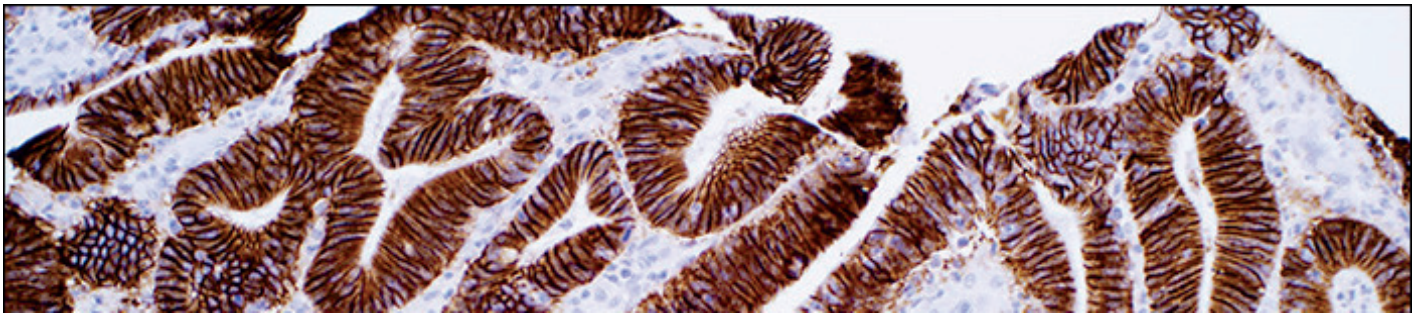

Cadherin-17 (clone SP183, rabbit)

- **Sensitive and specific marker for gastrointestinal adenocarcinomas**
- **More sensitive than Cdx2**

Cadherin-17 is a useful diagnostic marker for the identification of tumour origin. Immunohistochemical studies have shown that staining for cadherin-17 is usually diffuse and strongly positive in **colorectal adenocarcinomas** (95% of cases, mean 80% of tumour cells[2]), whereas a smaller proportion of tumour cells stains positive in **adenocarcinomas of the stomach, pancreas and bile ducts**. The vast majority of hepatocellular carcinomas are not immunoreactive with cadherin-17.[1,4]
In a recently published study[2], cadherin-17 was found to be a sensitive and specific marker for **adenocarcinoma of the urinary bladder** (distinguishing it from cadherin-17-negative urothelial carcinoma with glandular differentiation). **Beta-catenin** is suitable for the sometimes difficult distinction from colorectal adenocarcinomas: colorectal adenocarcinomas are characterised by a nuclear staining pattern for beta-catenin, whereas urothelial carcinomas with glandular differentiation are characterised by a membranous and cytoplasmic staining pattern. Other tumours originating outside the GI tract are reliably cadherin-17-negative.

Cadherin-17 (synonyms: LI-cadherin, *liver-intestinal*; *Human Peptide Transporter-1*) is a member of the cadherin superfamily. Unlike some classic cadherins, e.g. E-cadherin, N-cadherin or P-cadherin, cadherin-17 has seven (instead of five) cadherin *repeats* within its extracellular domain and its cytoplasmic domain consists of only 20 amino acid residues. The markedly short cytoplasmic domain of cadherin-17 displays only minimal homology with other cadherins. Moreover, the adhesive function of cadherin-17 is not dependent on association with cytoplasmic proteins. The subcellular localisation of cadherin-17 is also different from the classic cadherins. In intestinal epithelial cells E-cadherin is concentrated in *adherens junctions* whereas cadherin-17 is **distributed evenly along the lateral contact area**.

Tumor type	Cadherin-17 378R-1	Cdx2 235R-1	S100P 376M-9	GATA3 390M-1	TTF-1 343R-1	Napsin A 352M-9	Arginase-1 380R-1	Pax8 363M-1
Colorectal AdenoCa	+	+	-	-	-	-	-	-
Gastric AdenoCa	+	+	-	-	-	-	-	-
Oesophageal AdenoCa	+	+	-	-	-	-	-	-
Pancreatic ductual AdenoCa	-/+	+/-	+	-	-	-	-	-
Hepatocellular Ca	-	-	-	-	-	-	+	-
Lung AdenoCa	-	-	-	-	+	+	-	-
Mammary Ca	-	-	-	+	-	-	-	-
Ovarian Ca	-	-	-	-	-	-	-	+

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Ordering Information

Antibody	Clone	Species	Dilution	Concentrate			Ready to use/RTU	
				0.1 ml	0.5 ml	1.0 ml	1 ml	7 ml
Arginase-1	SP156	Rabbit	25-100	380R-14	380R-15	380R-16	380R-17	380R-18
beta-Catenin	14	Mouse	5-50	224M-14	224M-15	224M-16	224M-17	224M-18
Cadherin-17	SP183	Rabbit	100-500	378R-14	378R-15	378R-16	378R-17	378R-18
CDX-2	EPR2764Y	Rabbit	100-500	235R-14	235R-15	235R-16	235R-17	235R-18
GATA3	L50-823	Mouse	100-500	390M-14	390M-15	390M-16	390M-17	390M-18
Napsin A	MRQ-60	Mouse	100-500	352M-94	352M-95	352M-96	352M-97	352M-98
Pax8	MRQ-50	Mouse	50-200	363M-94	363M-15	363M-16	363M-17	363M-18
TTF-1	EP229	Rabbit	50-200	343R-14	343R-15	343R-16	343R-17	343R-18
S100P	16/f5	Mouse	100-500	376M-94	376M-95	376M-96	376M-97	376M-98

For further markers please see the current Cell Marque catalogue and the associated supplement on our website www.medac-diagnostika.de: first, click on Information, then on Immunohistochemistry, see under Catalogues.

Status: IVD
Species: Rabbit, monoclonal
Clone: SP183
Isotype: IgG
Immunoreactivity: Membranous, cytoplasmic
Epitope Retrieval: Tris/EDTA pH 8 (20-30 min 95-99°C, e.g. Trilogy, 920P-07)
Recommended Dilution: 1:100-1:500

Cadherin-17 references:

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2. Rao Q, *et al.* Distinguishing primary adenocarcinoma of the urinary bladder from secondary involvement by colorectal adenocarcinoma: extended immunohistochemical profiles emphasizing novel markers. Mod Pathol 2013; 26: 725-732.
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4. Su MC, *et al.* Cadherin-17 is a useful diagnostic marker for adenocarcinomas of the digestive system. Mod Pathol 2008; 21: 1379-1386.
5. Motoshita J, *et al.* Molecular characteristics of differentiated-type gastric carcinoma with distinct mucin phenotype: LI-cadherin is associated with intestinal phenotype. Pathol Int 2006; 56(4): 200-205.
6. Ito R, *et al.* Clinicopathological significant and prognostic influence of cadherin-17 expression in gastric cancer. Virchows Arch 2005; 447(4): 717-722.
7. Ko S, *et al.* CDX2 co-localizes with liver-intestine cadherin in intestinal metaplasia and adenocarcinoma of the stomach. J Pathol 2005; 205(5): 615-622.
8. Qiu HB, *et al.* Targeting CDH17 suppresses tumor progression in gastric cancer by downregulating Wnt/β-catenin signaling. PLoS One 2013; 8(3): e56959.
9. Liu LX *et al.* Targeting cadherin-17 inactivates Wnt signaling and inhibits tumor growth in liver carcinoma. Hepatology 2009; 50: 1453-1463.
10. Grötzinger C, *et al.* LI-cadherin: a marker of gastric metaplasia and neoplasia. Gut 2001; 49(1): 73-81.
11. Gessner R, Tauber R. Intestinal cell adhesion molecules. Liver-intestine cadherin. Ann N Y Acad Sci 2000;915:136-143 (Review).
12. Baumgartner W. Possible roles of LI-cadherin in the formation and maintenance of the intestinal epithelial barrier. Tissue Barriers 2013; 1: e23815.

First-hand information
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