

Colorectal adenocarcinoma with clear cell changes. Immunohistological and molecular findings in three cases. Virchows Archiv.

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Supplementary Table 2: Immunohistochemistry and molecular analysis.

Antibody specification and manufacturer used for immunohistochemistry

Antigen ^a	Clone	Manufacturer	Pretreatment (minutes)
CK20	SP33	Ventana/Roche	CC1 (64 min.)
CDX2	EPR2764Y	Cell Marque	CC1 (32 min.)
SATB2	EP281	Cell Marque	CC1 (32 min.)
CEA	CEA31	Cell Marque	Protease1 (min.)
CK7	SP52	Ventana/Roche	CC1 (24 min.)
CAIX	EP161	Cell Marque	CC1 (32 min.) and Protease3 (4 min.)
PAX8	MRQ-50	Cell Marque	CC1 (64 min.)
RCC	PN-15	Cell Marque	Protease1 (4 min.)
AFP	Polyclonal	Cell Marque	CC1 24 (min.)
GPC3	GC33	Ventana/Roche	CC1 (24 min.)
SALL4	6E3	Cell Marque	CC1 (32 min.)
Vimentin	V9	Ventana/Roche	CC1 (8 min.)
CD10	SP67	Ventana/Roche	CC1 (64 min.) and amplifier
p53	DO-7	Ventana/Roche	CC1 (48 min.)
Chromogranin A	LK2H10	Ventana/Roche	CC1 (8 min.)
Synaptophysin	SP11	Ventana/Roche	CC1 (40 min.)
CD56	MRQ-42	Cell Marque	CC1 (40 min.)
MLH1*	M1	Ventana/Roche	CC1 (48 min.) and amplifier
PMS2*	EPR3947	Cell Marque	CC1 (72 min.) and amplifier
MSH2*	G219-1129	Cell Marque	CC1 (64 min.)
MSH6*	44	Cell Marque	CC1 (72 min.) and amplifier
MUC1	DCM-17	DCS	CC1 (20 min.)
MUC2	CCP58	Agilent	CC1 (40 min.)
MUC5AC	CLH2	Chemicon	CC1 (40 min.)
MUC6	DCM-20	DCS	CC1 (40 min.)

^aCAIX = Carboanhydrase IX; RCC = Renal cell carcinoma marker; GPC3 = glypican-3; MMR = mismatch repair proteins

Molecular Analysis: To identify genetic alterations, the Ion AmpliSeq™ Colon and Lung Cancer Research Panel v2, the Ion AmpliSeq™ Cancer Hotspot Panel v2, and the Ion GeneStudio™ S5 Systems (all from ThermoFisher Scientific, Carlsbad, CA, U.S.A.) were used. These panels are designed to cover approximately 2,800 COSMIC mutations of oncogenes and tumor suppressor genes. These include *ABL1*, *AKT1*, *ALK*, *APC*, *ATM*, *BRAF*, *CDH1*, *CDKN2A*, *CSF1R*, *CTNNB1*, *DDR2*, *EGFR*, *ERBB2*, *ERBB4*, *EZH2*, *FBXW7*, *FGFR1*, *FGFR2*, *FGFR3*, *FLT3*, *GNA11*, *GNAQ*, *GNAS*, *HNF1A*, *HRAS*, *IDH1*, *IDH2*, *JAK2*, *JAK3*, *KDR*, *KIT*, *KRAS*, *MET*, *MLH1*, *MPL*, *NOTCH1*, *NPM1*, *NRAS*, *PDGFRA*, *PIK3CA*, *PTEN*, *PTPN11*, *RBI*, *RET*, *SMAD4*, *SMARCB1*, *SMO*, *SRC*, *STK11*, *TP53*, *VHL*.