Liver Cancer Markers
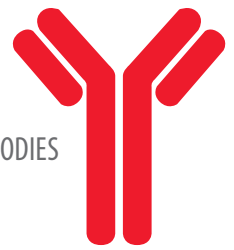
Assessment, Diagnosis, Prognosis

and Treatment Determination

of HCC

Novel Antibodies for Liver Cancer

Hepatocellular carcinoma (HCC) is the fifth most common cancer in men and the eighth most common cancer in women worldwide. It is also the third most common cause of cancer-related death, with 500,000 new cases diagnosed annually. In the West and Japan, hepatitis C infection and liver cirrhosis are the main risk factors fof HCC, and in most parts of Asia and Africa, hepatitis B virus and aflatoxin B1 infection is most relevant, although alcoholic cirrhosis or hemochromatosis are also at increased risk.

Studies have shown that early detection of HCC, preferably when still asymptomatic, is desirable to institute early treatment to decrease or abolish risk of HCC.

DBS offers a wide range of Cytokeratins (CK) to distinguish intermediate filaments in epithelial cells of all origins. An initial screen for hepatocellular carcinoma should include a Pan Cytokeratin, AE1/AE3 and other Cytokeratins based upon the cellular morphology and the referring physician's clinical records. Once an initial differention is made, a more specific IHC panel can be determined to diagnose an epithelial tumor of the liver, tumor origin, treatment method and prognosis.

DBS' comprehensive liver panel includes novel rabbit monoclonal and mouse monoclonal antibodies. These antibodies ensure sensitivity and specificity of IHC tests. As a result, pathologists and oncologists can have rapid and precise results and an accurate diagnosis to determine effective treatment for the patients.
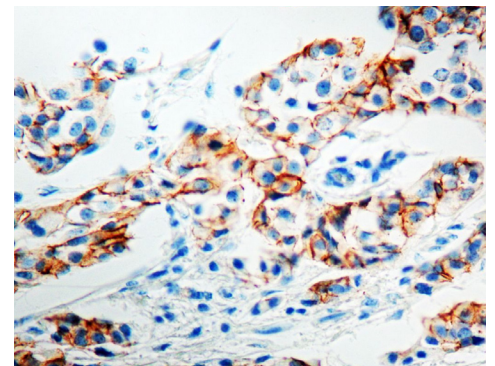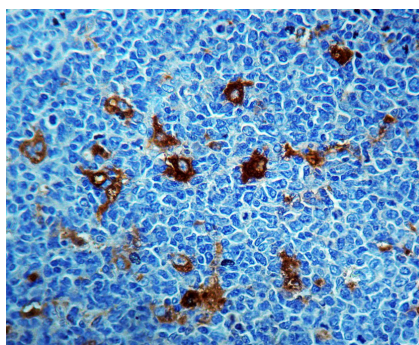

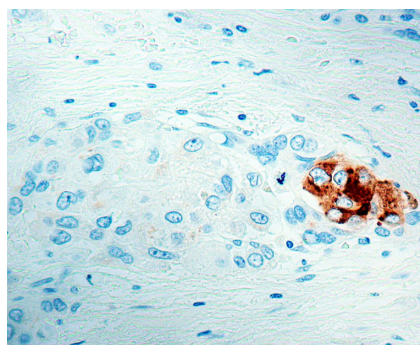*Human breast carcinoma stained with anti-E-Cadherin using DAB*

DBS Antibodies

Name	Cat. No.	Clone	Clinical Utility
AFP	Mob 129	C3 (M)	Screening patients at high risk for HCC, especially those with hepatitis B and hepatitis C related liver cirrhosis; assessing prognosis preoperatively
α-Antitrypsin	RP 048 PDR 021	Polyclonal (R)	Complementary to AFP
β-catenin	RP 080	Polyclonal (R)	Prognostic marker for recurrence when selecting HCC patients for orthotopic liver transplantation
CA 125	Mob 110	OV185:1 (M)	Could serve as a first-line screening test followed by confirmation of positives by AFP in situations of low HCC prevalence
Cyclin D1	RMAB 003 RMPD 003	SP4 (R)	Cyclin D1 gene has been shown to be amplified in 10-20% of HCCs
Cytokeratin 18	Mob 187 PDM 164	DC10 (M)	Complementary to AFP
Cytokeratin 19	Mob 058	BA17 (M)	Complementary to AFP
Cytokeratin 8 &18	Mob 189 PDM 070	5D3 (M)	Useful for the identification of adenocarcinomas and some squamous cell carcinomas. Use in conjunction with HMW CK to rule out squamous cell carcinoma
E-cadherin	RMAB 041 RMPD 041	EP6 (R)	Prognostic marker for recurrence when selecting HCC patients for orthotopic liver transplantation
HSP 70	Mob 269	W27 (M)	Useful for the differential diagnosis of early HCC from precancerous lesion or noncancerous liver, a difficult distinction for pathologists due to very well differentiated histology with little atypia in early HCC
Hepatocyte	Mob 426 PDM 162	OCH1E5 (M)	Useful in differentiating HCC from primary hepatic cholangiocarcinoma and metastatic tumors when combined with other immuno-markers
ICAM-1/CD54	Mob 161	23G12 (M)	Predictor of prognosis of HCC
IGF-1R	Mob 375	24-31 (M)	Overexpression in HCC might be useful for investigation of potential therapeutic treatment of human HCC
Ki67	RMAB 004 RMPD 004	SP6 (R)	Assessment of prognosis after resection of HCC
MUC1 (CA 15-3/KL-6)	Mob 134 PDM 059	DBMM1 (M)	Could be a novel tumor marker in the diagnosis and the prediction of prognosis of HCC that may have additive value to the existent markers
p53	RMAB 016 RMPD 016	SP5 (R)	Quantitative immunohistochemical scoring for p53 nuclear accumulation might be more valuable for predicting prognosis of patients after HCC resection than the common qualitative analysis
PCNA	Mob 083 PDM 014	PC10 (M)	Prediction of recurrence and survival in small HCC
P-glycoprotein (p170)	Mob 358	F4 (M)	Expression of P-glycoprotein in HCCs is associated with a shorter disease-free interval and shorter survival time
RB1	Mob 220 PDM 111	1F8 (M)	LOH at the RB1 gene locus and RB1 mutations have been observed in about 15% of HCCs
Ubiquitin	Mob 225	FPM1 (M)	A possible new predictive marker for the recurrence of human hepato-cellular carcinoma
VEGF	Mob 308 PDM 165	VG1 (M)	Predictor of poor outcome

R—Rabbit   M—Mouse

Diagnostic BioSystems
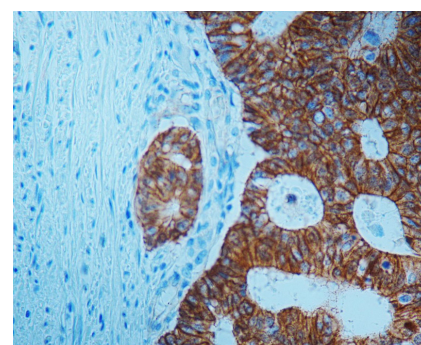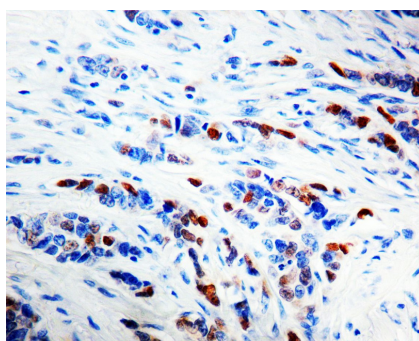
Human tonsil stained with anti-α-1 Antitrypsin using DAB
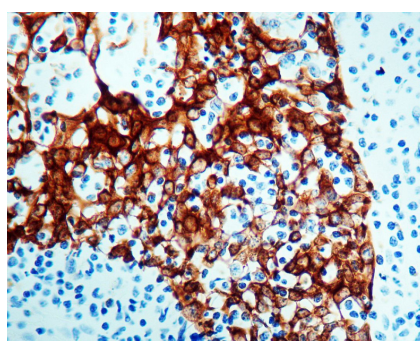

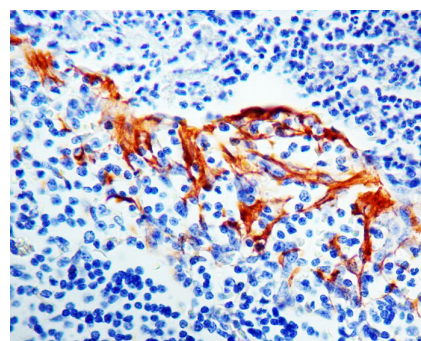Human hepatocellular carcinoma stained with anti-AFP using DAB

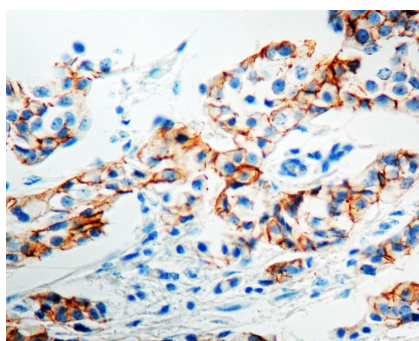Human large intestine stained with anti-Catenin β using DAB

Human breast carcinoma stained with anti-Cyclin D1 using DAB

Human tonsil stained with anti-Cytokeratin 18 using DAB

Human tonsil stained with anti-Cytokeratin 19 using DAB

Human breast carcinoma stained with anti-E-Cadherin using DAB

Diagnostic BioSystems

PolyVue Plus™ HRP Mouse/Rabbit HRP/DAB Kit:
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- Fast staining protocol with superior sensitivity
- Suitable for manual staining or automated staining instruments

Size (100 ul/test)	100 Tests	1000 Tests
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