

Major reference labs now offer DCP assay

Wako announces the commercial availability of a new serum marker used in risk assessment for HCC: des- γ -carboxy prothrombin (DCP), also known as PIVKA-II (protein induced by vitamin K absence-II). Wako's DCP test is an addition to the already available AFP-L3% test for risk assessment for the development of HCC in patients with chronic liver disease.

DCP has been demonstrated to differentiate early stage HCC from cirrhosis with high sensitivity and specificity up to 92% and 93%, respectively [1]. DCP also identified HCC in 15 of 17 patients who would have gone undetected if total AFP was used alone during screening [1]. Patients who test positive for DCP often show features of HCC that are different from those who test positive for AFP-L3; elevated DCP level corresponds to the stage of HCC, tumor characteristics and patient outcome [2-4].

Several studies have shown that the expression of three HCC markers AFP, AFP-L3, and DCP is only partially overlapping in HCC patients and that DCP expression is independent and complementary to AFP and AFP-L3% measurements [2-5]. Combining all three markers has been demonstrated to increase the sensitivity (up to 88%) while maintaining high specificity (up to 91%) for detection of HCC [1-4].

Wako's AFP-L3% and DCP tests are FDA 510(k) cleared for clinical use as risk assessment tests for the development of HCC in patients with chronic liver disease. Wako's AFP-L3% test also reports total AFP values during the AFP-L3% measurements. Both tests are available at major reference labs. Some additional reference labs are currently in the process of making DCP test available. Please email liver@wakousa.com or your preferred reference lab for more information.

ARUP test codes

- AFP-L3%: 0081208
- DCP: 0081312
(Available November 26, 2007)
www.aruplab.com

LabCorp test codes

- AFP-L3%: 141300
- DCP: 141325
- Hepatocellular Carcinoma Risk Profile
(AFP-L3%+DCP): 140002
www.labcorp.com

Quest Diagnostics test codes

- AFP-L3%: 19529X
- DCP: Please contact your Quest representative for up to date information
www.questdiagnostics.com

Specialty Labs test codes

- AFP-L3%: 4911
- DCP: Please contact your Specialty Labs representative for up to date information
www.specialtylabs.com

References:

1. Volk M et al. Risk factors for hepatocellular carcinoma may impair the performance of biomarkers: A comparison of AFP, DCP, and AFP-L3. *Cancer Biomarkers*. 2007; 3:79-87.
2. Toyoda H et al. Prognostic significance of simultaneous measurement of three tumor markers in patients with hepatocellular carcinoma. *Clinical Gastroenterology and Hepatology*. 2006; 4:111-117.
3. Koike Y et al. Des-gamma-carboxy prothrombin as a useful predisposing factor for the development of portal venous invasion in patients with hepatocellular carcinoma: a prospective analysis of 227 patients. *Cancer*. 200; 91(3):561-9.
4. Carr B et al. Clinical Evaluation of *Lens culinaris* Agglutinin-Reactive α -Fetoprotein and Des- γ -Carboxy Prothrombin in Histologically Proven Hepatocellular Carcinoma in the United States. *Dig Dis Sci*. 2007; 52:776-782.
5. Sterling R et al. Clinical utility of *Lens culinaris* agglutinin-reactive fraction of alpha-fetoprotein (AFP-L3) and des- γ -carboxy prothrombin (DCP) alone or in combination as biomarkers for hepatocellular carcinoma (HCC). Poster presentation at DDW, May 2007.