

TABLE 2. Effects of plant polyphenolic extracts on HCC *in vivo* models

Biological Model	Plant Polyphenolic Extract	Tumor inductor	Extraction Solvent	Biological Activity	References
Male Sprague Dawley rats	Cacao liquor (0.5 g/kg of body weight/day)	DEN 200 mg/kg of body weight	70% (vol/vol) ethanol/water	↓ of tumor markers enzymes: alkaline phosphatase, glutathione S transferases, glutamyl transpeptidase and glutathione reductase	Amin <i>et al.</i> , 2004
Male Wistar Rats	<i>Ardisia compressa</i> leaves (0.5%, w/v in tap water)	DEN 100 mg/kg body weight	Water at 94 °C	↓ development and progression of the tumor	Gonzalez Mejia <i>et al.</i> , 2004
Female swiss albino rats	<i>Acacia nilotica</i> (100 or 200 mg/kg of body weight/day)	NDEA 200 mg/kg of body weight	Hexane/1% 6N HCl ethanol	↓ ALT, AST, ALP, GT, TBL; ↓ AFP, CEA; ↓ LPO; ↑ GSH, CAT, SOD; ↑ GPx, GST	Singh <i>et al.</i> , 2009
Athymic nude mice	<i>Solanum nigrum</i> (5 g of daily basal diets containing 1 or 2µg/mL (w/v)	5×10 ⁶ HepG2 cells in 400µL matrigel were implanted	Boiling water	↓ tumor weight and volume	Wang <i>et al.</i> , 2010
Kunming mice	<i>Pinus massoniana</i> bark (100, 200 or 300 mg/kg of body weight/day)	0.2 ml of 5×10 ⁶ hepatoma cells H22	Boiling water	↓ tumor growth	Ma <i>et al.</i> , 2010
BALB/c nude mice	<i>Camellia ptilophylla</i> (0.5%, 1% and 2% (wt/vol)/day)	2×10 ⁶ HepG2 cells were injected	Water at 98°C	↓ tumor growth; ↑ apoptosis	Yang <i>et al.</i> , 2012
Male nude mice	<i>Pulsatilla koreana</i> (intraperitoneal injection of 125 and 250 mg/kg/day)	5×10 ⁶ Huh-7 cells were injected	50% aqueous ethanol/ acetone	↓ tumor growth; ↑ apoptosis and necrosis; ↓ Ki-67; ↓ CD31, VEGF; ↑ caspase 3, PARP degradation	Hong <i>et al.</i> , 2012

© Martinez, M. J., Andreu, A. & Barbini, L. (2014)

Publisher: Horizon e-Publishing Group

CITATION

Martinez, M. J., Andreu, A. and Barbini, L. (2014). Plant polyphenolic extracts as potential anti-human hepatocarcinoma agents. *Plant Science Today*, 1(4), 213-218. <http://dx.doi.org/10.14719/pst.2014.1.4.62>