

In vitro and *In vivo* Effects of Crocetin against Several Cancers

Types of Cancers	Cell lines/Animal models	Factors Affected	References
Breast Cancer	MCF-7, MDA-MB-231	↓Proliferation	Chryssanthi <i>et al.</i>
	MCF-7, MDA-MB-231	↑Apoptosis	Mousavi <i>et al.</i> 2009
Cervical Cancer	HeLa Cells	↓DNA, RNA and protein synthesis	Abdullaev & Frenkel
	HeLa Cells	↑Apoptosis	Tavakkol-Afshari <i>et al.</i>
	HeLa Cells	↓RNA polymerase activity	Abdullaev
	HeLa Cells	↑tRNA interaction	Kanakakis <i>et al.</i>
	HeLa Cells	↓RNA, DNA and protein synthesis	Escribano <i>et al.</i>
Colorectal Cancer	HCT-116, SW-480, and HT-29	↓Proliferation	Aung <i>et al.</i>
Leukemia	HL60	↓Cytotoxicity and proliferation	Tarantilis <i>et al.</i>
	L1210 and P388	↓ Cytotoxicity and proliferation	Morjani <i>et al.</i>
	K562	↓ Cytotoxicity and proliferation	Tarantilis <i>et al.</i> ; Morjani <i>et al.</i>
Liver Cancer	Wistar rat (AFB1) C3H1OT1/2 cells	↓Lipid peroxidation	Wang <i>et al.</i>
	Wistar rat (AFB1) C3H1OT1/2 cells	↓Reactive oxygen species	Wang <i>et al.</i>
	Wistar rat (AFB1) C3H1OT1/2 cells	↓ DNA-adduct formation	Chang <i>et al.</i>
	HepG2	↓Proliferation, ↑apoptosis	Tavakkol-Afshari <i>et al.</i>
Lung Cancer	Swiss albino mice (B[a]P)	↓ Lipid peroxidation, ↑GST, ↑catalases, ↑superoxide dismutase	Magesh <i>et al.</i>
	Swiss albino mice (B[a]P)	↓ polyamine	Magesh <i>et al.</i>
	A549 lung carcinoma	↓DNA, RNA and protein, ↓RNA polymerase II	Abdullev 1994
	VA-13 fetal lung fibroblast	↓DNA, RNA and protein, ↓RNA Polymerase II	Abdullev 1994
Pancreatic Cancer	Mia PaCa2, BxPc3, Capan-1 and ASPC-1 cells; Athymic xenograft mice (Mia PaCa-2)	↓Proliferation, ↓ EGFR phosphorylation, ↑Cdc2 phosphorylation, ↓Cdc25c, ↓cyclin B1, ↑apoptosis, ↑Bax, ↓Bcl-2, ↓Tumor formation	Dhar <i>et al.</i>
Skin Cancer	Swiss Webster mice (DMBA and croton oil)	↓Tumor formation	Gainer <i>et al.</i> Mathews-Roth