



Appendix 1. Flow diagram of the study

Appendix 2. Main characteristics of the selected studies

Reference/Country	Flavonoid Type	Studied cells	Type of Cancer	Control Group	<i>In vivo or in vitro</i>	Exposure Time	Temperature	Outcome
An H-K, et al, 2014/ South Korea	Isolated MML	A549, NSCLC, and others	Lung, Breast, Colorectal and Osteosarcoma	Cells not treated with MML	<i>In vitro</i>	24 h	37 °C 98 °F	The results revealed a significant inhibition of cell proliferation by treatment with MML in a dose-dependent manner.
Aryal P, et al, 2014/ South Korea	Baicalein	PC-3, MDA-MB-231, and DU145	Prostate and Breast	Cells not treated with Baicalein - positive control through chloroquine, CCCP, cisplatin and BacMam LC3B -FP	<i>In vitro</i>	24 h	37 °C 98 °F	Baicalein reduces mitochondrial membrane potential and induces cell cycle termination leading to death of human prostate and breast cancer cells.
Chen G, et al, 2012/ China	ISL	ACC- 2 and ACC-M	Adenoid cystic carcinoma	DMSO	<i>In vivo and in vitro</i>	48 h	37 °C 98 °F	ISL treatment activates autophagy in ACC cells
Chow S, et al, 2012/ Taiwan	Wogonin	NPC-TW076 and NPC-TWO39	Nasopharynx	Cells not treated with Wogonin	<i>In vitro</i>	24 h	37 °C 98 °F	Data indicate that Wogonin activated the autophagic process in a time-dependent manner in NPC cells.
Huang, et al, 2019/ China	Icariin	HeLa	Cervical	Cells not treated with Icariin	<i>In vitro</i>	24 h	37 °C 98 °F	Icariin treatment caused dose-dependent growth inhibition of the HeLa cell line.
Jia S, et al, 2019/ China	Fisetin	PDAC - PANC-1 cells	Pancreatic	Cells incubated in PBS - negative control	<i>In vivo and in vitro</i>	72 h	37 °C 98 °F	The results showed that fisetin increased the autophagic flux in PANC-1 cells.
Lee HJ, et al, 2018/ South Korea	PEC	MKN28	Gastric	Non-use of PEC	<i>In vitro</i>	24 h	37 °C 98 °F	PEC may be an alternative therapeutic agent for human gastric carcinoma.
Li F, et al, 2015 / China	Silibinin	RCC ACHN and 786-O cells	Kidney	Vehicle treated cells (DMSO)	<i>In vitro</i>	24-48 h	37 °C 98 °F	The induction of autophagy by silibinin contributes positively in renal cell carcinoma.
Wang S, et al, 2019/ China	Sotetsu Flavone	NSCLC (<i>in vivo</i> and <i>in vitro</i>) cells	Lung	Non-use of sotetsu flavone	<i>In vivo and in vitro</i>	24 h	37 °C 98 °F	Sotetsu Flavone induces autophagy in NSCLC cells through its effects after blocking PI3K/AKT/mTOR signaling pathways.
Zou M, et al, 2012	Oroxylin A	HepG2 cells	Liver	Non-use of Oroxylin A	<i>In vivo and in vitro</i>	24 h	37 °C 98 °F	Oroxylin A inhibited xenograft tumor growth and induced obvious autophagy in the tumors.