

Evaluation of Anti-Cancer Activities of Formononetin in Lung Cancer by in vitro Methods

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Abstract : Formononetin is the O-Methoxy Flavonol that has many pharmacological activities, which belongs to the flavonoid family. In the current study, activity of this molecule was evaluated in lung cancer cell lines. In general, flavonoids possess certain anticancer mechanism. Being a flavonoid subfamily, this molecule was subjected to evaluate cytotoxicity assay by MTT ((3-(4,5-Dimethylthiazol-2-yl)-2,5-Diphenyltetrazolium Bromide)) stain, mode of cell death assay stained by acridine orange and ethidium bromide and Evaluation of Apoptosis pathway (extrinsic or intrinsic) by Caspase 3/7 stain and Rhodamine-123 stain. From the results, we could able to confirm that the investigatory molecule formononetin has anticancer activity and in future, the study will propose to evaluate the formononetin action against genetic changes occurs during lung cancer progression.

Keywords : Caspase 3/7, formononetin, lung cancer, Rhodamine-123

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