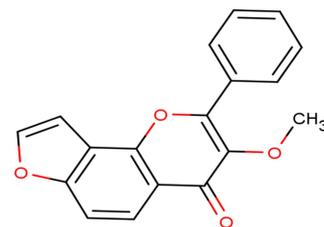


Product Name	:	Karanjin
Catalog Number	:	T2S0820
CAS Number	:	521-88-0
Molecular Formula	:	C ₁₈ H ₁₂ O ₄
Molecular Weight	:	292.29
Appearance	:	
Melting Point	:	



Description: Karanjin is a flavonoid obtained from the seeds of the karanja tree. Karanjin induces GLUT4 translocation in skeletal muscle cells by increasing AMPK activity. Karanjin can induce cancer cell death through cell cycle arrest and enhance apoptosis.

Storage: 2 years -80°C in solvent; 3 years -20°C powder;

Receptor (IC50)	AChR	
	Akt	
	AMPK	
	ATPase	
	GLUT	
	NF-κB	
	NO	
	PI3K	
	SOD	
	Sodium Channel	
	TNF-α	

In vitro Activity

Karanjin is a furanoflavonol, insecticidal and acaricidal activities. The present study was intended to evaluate the biochemical interactions of karanjin with bovine serum albumin (BSA) and study its toxicological effects on mammalian and bacterial cell lines. Karanjin bound to BSA at a single site with a dissociation constant of 19.7 μM. Evaluation of BSA-karanjin interactions at three different temperatures indicated the involvement of static mode of quenching. Binding experiments in the presence of warfarin and computational docking analysis indicated that karanjin bound closer to the warfarin binding site located in the Subdomain IIA of BSA. Using Förster resonance energy transfer analysis the distance between TRP 213 of BSA and karanjin was found to be 20 Å. Collective results from synchronous fluorescence spectra analysis, differential scanning calorimetry, and circular dichroism analysis indicated that binding of karanjin induced conformational changes in the secondary structure of BSA. Karanjin exhibited low toxicity against human cervical cancer cells and normal mouse fibroblast L929 cells and modestly inhibited the growth of *B. subtilis* and *E. coli* cells[3].

Reference

3. Dasgupta D, Mahanta S, Pathinayagam K. Biochemical and toxicological investigation of karanjin, a bio-peptide

S. Raghav D , Manjaly S , Kalinasamy K . BIOCHEMICAL AND TOXICOLOGICAL INVESTIGATION OF KARAJIN, A BIO-PESTICIDE ISOLATED FROM PONGAMIA SEED OIL - ScienceDirect[J]. Pesticide Biochemistry and Physiology, 2019, 157:108-121.

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