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A novel alkaloid, evodiamine causes nuclear localization of cytochrome-c and induces apoptosis independent of p53 in human lung cancer cells

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Graphical Abstract

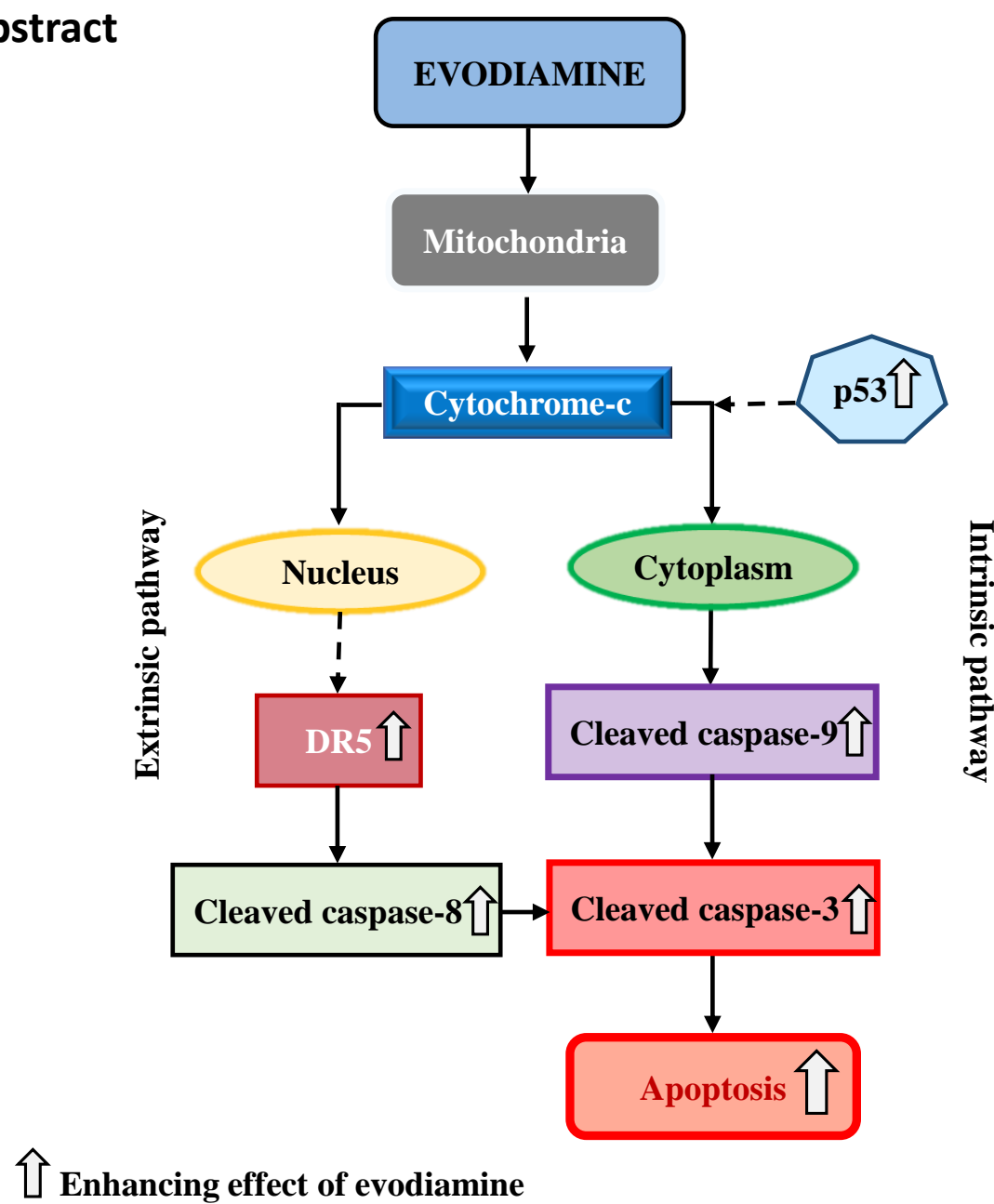


Figure: Evodiamine-induced mechanism of apoptosis in A549 lung cancer cells. Evodiamine induced the release of mitochondrial cytochrome-c in both cytosol and mitochondria and activated both intrinsic and extrinsic pathways. It activates p53 phosphorylation that further initiates apoptosis through intrinsic pathway. Evodiamine increased the expression of DR5 which could be linked to nuclear cytochrome-c, and enhanced cleaved caspases-8, and in p53 inhibitory condition down-stream it activated caspase-3 to trigger apoptosis.

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