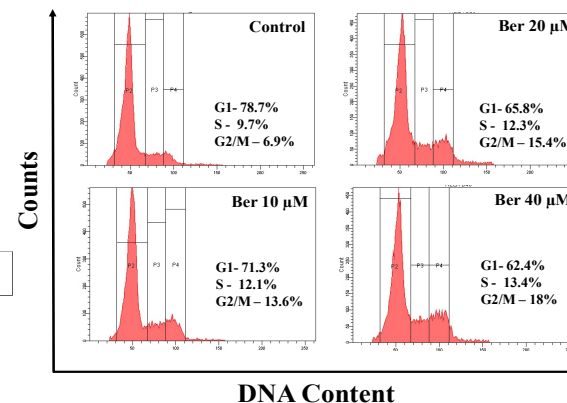
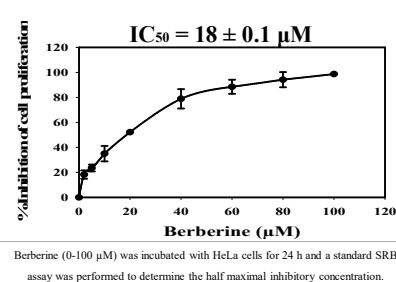
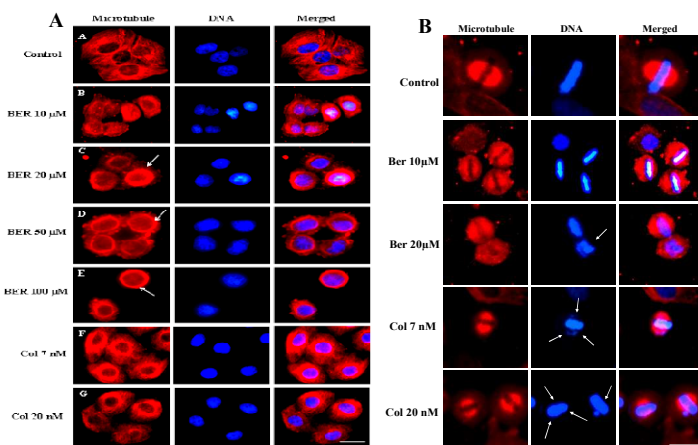


Introduction: Berberine is an isoquinoline alkaloid which is present in a wide variety of medicinal plants and is reported to exhibit antifungal, antiprotozoal and antimicrobial activity against a wide range of microorganisms. Berberine has been reported to inhibit the functions of FtsZ, the prokaryotic homolog of mammalian cell division protein tubulin. In addition to its antimicrobial activity berberine also exerts significant anticancer activity. In this study we show that berberine binds to tubulin and depolymerizes the interphase and mitotic microtubules and that the cytotoxic activity of berberine could be partly through the perturbation of microtubule assembly.

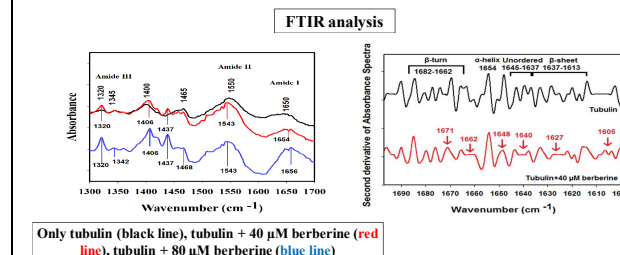
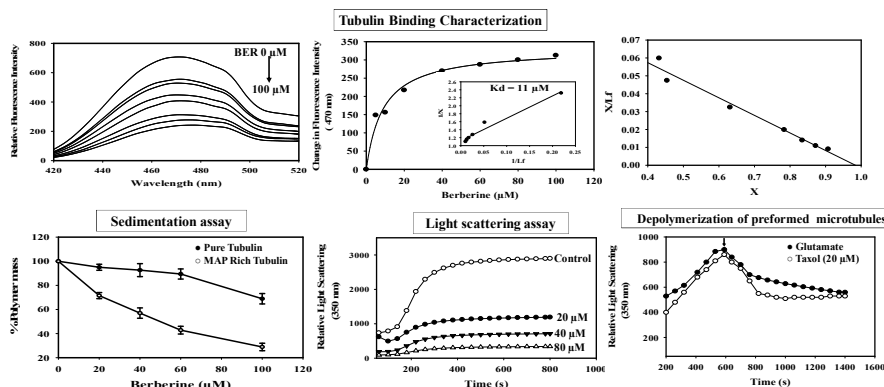
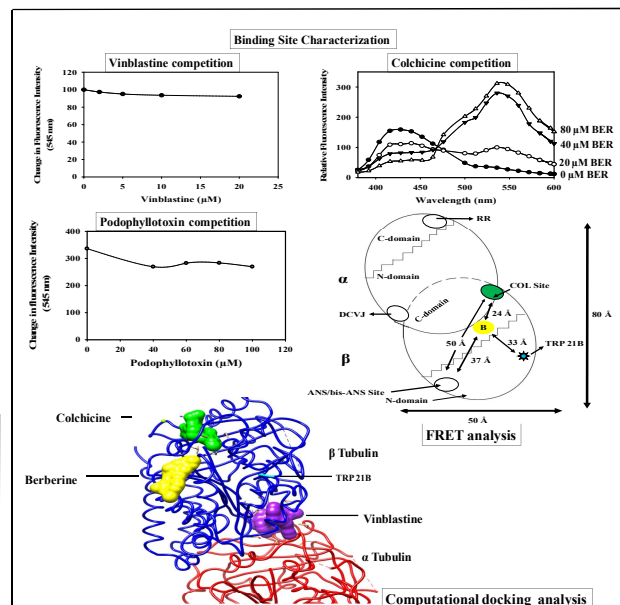


DNA Content

Effect of berberine on cell cycle progression of HeLa cells.



Effect of berberine on (A) Interphase and (B) mitotic spindle apparatus.



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