



In Vitro Cytotoxic Screening of Coumarins

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SUMMARY. This study reports the cytotoxicity screening of 33 coumarins in a panel of human tumor cell lines (Caco-2: human colorectal adenocarcinoma, HCT-8: human ileocecal adenocarcinoma, and HEP-2: human larynx epidermoid carcinoma). The classic MTT assay was employed to evaluate the influence of samples on cellular viability. Following continuous incubation with cells for 72 h, all tested coumarins exhibited CC₅₀ values \geq 0.34 mM for all three cell lines. These findings indicate that all samples were not able to reduce the viability of tumor cell lines used in this study in clinically relevant concentrations. Some structure-activity relationships were established and could be used for the synthesis of derivatives with improved cytotoxic potential.

KEY WORDS: Coumarins, Cytotoxicity, MTT Assay.

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