Latin American Journal of Pharmacy
(formerly *Acta Farmacéutica Bonaerense)*
Lat. Am. J. Pharm. **37** (6): 1221-5 (2018)

Received: January 30, 2018
Revised version: May 2, 2018
Accepted: May 3, 2018

Cytotoxicity Study of Capmul MCM and Vitamin E-TPGS

P.V. RAVIKANTH * [1] & K.V. RAMANAMURHTY [2]

[1] *University of Utah, Salt Lake City, UT 84112, USA*
[2] *University College of Pharmaceutical Sciences, Andhra University, Visakhapatnam-530 003, India*

***SUMMARY*. Cytotoxicity study was carried out to find optimum concentrations of Capmul MCM and Vitamin E-TPGS which are frequently used emulsifiers in various pharmaceutical dosage forms. Cytotoxicity study was carried using Cell Counting Kit-8 (CCK-8) on adenocarcinoma cell lines (Caco-2). Number of cells required for cytotoxicity assay was optimized and this optimum number of cells were used to carry cytotoxicity study. From the experiment it was found that 15,000 cells per well were optimum to carryout cytotoxicity study. The cytotoxicity of five different concentrations of Capmul MCM and Vitamin E-TPGS 0.1, 0.2, 0.3, 0.4, 0.5, and 1 % v/v were investigated. The cytotoxicity data was analyzed using Graph pad prism version 7 and LC 50 were estimated and compared.**

RESUMEN. Se llevó a cabo un estudio de citotoxicidad para encontrar concentraciones óptimas de Capmul MCM y Vitamina E-TPGS que son emulsionantes usados frecuentemente en diversas formas de dosificación farmacéutica. El estudio de citotoxicidad se llevó a cabo usando Cell Counting Kit-8 (CCK-8) en líneas celulares de adenocarcinoma (Caco-2). Se optimizó el número de células necesarias para el ensayo de citotoxicidad y se utilizó este número óptimo de células para realizar un estudio de citotoxicidad. Del experimento se descubrió que 15.000 células por pocillo eran óptimas para llevar a cabo un estudio de citotoxicidad. Se investigó la citotoxicidad de cinco concentraciones diferentes de Capmul MCM y Vitamina E-TPGS: 0.1, 0.2, 0.3, 0.4, 0.5 y 1% v/v. Los datos de citotoxicidad se analizaron usando Graph pad prism versión 7 y LC 50 se estimaron y compararon.

KEY WORDS: Capmul MCM, cytotoxicity study, Vitamin E-TPGS.

* Author to whom correspondence should be addressed. *E-mail:* u6002241@utah.edu

ISSN 0326 2383 (printed ed.)
ISSN 2362-3853 (on line ed.)