CARBOHYDRATE-BASED CELL ADHESION: ANALYSIS OF SPHEROID FORMATION

Marco Antonio Vieira Macedo Grinet¹
Thiago Moreira Pedroso²
Fernanda Roberta Marciano³

Resumo: Carbohydrates are vast constituents of cell surfaces and in many systems where cell adhesion plays a critical role, carbohydrate binding proteins have been shown to bind to cell surface carbohydrates and participate in cell-cell interactions. Jurkat cells are suspension cells that grow in clumps and have 20.7 (± 2.2) hours of population doubling time (PDT). In this experiment, Jurkat cells are studied to compare the effects of wheat germ agglutinin (WGA) lectin, and Maackia amurensis (MAA) lectin, for clumping and spheroid formation studies, as well as carbohydrate analog solutions in ethanol (C₂H₆O) Ac₄ManNAc, and Ac₅ManNTGc for concentration effect studies.

Palavras-chave: Cell Adhesion; Jurkat cells; Spheroids; Carbohydrates; Lectin.

-

¹ Universidade do Vale do Paraíba/Engenharia Biomédica, Brasil. E-mail: mgrinet1@gmail.com.

² Universidade do Vale do Paraíba/Engenharia Biomédica, Brasil. E-mail: thiagompedroso@gmail.com.

³ Universidade do Vale do Paraíba/Engenharia Biomédica, Brasil. E-mail: frmarciano@univap.br.