

Download Cytochalasin B Glucose Uptake

Cytochalasin B, the name of which comes from the Greek cytos (cell) and chalisis (relaxation), is a cell-permeable mycotoxin. It was found that substoichiometric concentrations of cytochalasin B (CB) strongly inhibit network formation by actin filaments. The GLUT1 (HepG2) gene encodes the major glucose transporter in brain, placenta, and erythrocytes (Baroni et al., 1992). The glucose transporter GLUT1 catalyses facilitative diffusion of glucose into erythrocytes and is responsible for glucose supply to the brain and other organs. Insulin increases glucose uptake in cells by stimulating the translocation of the glucose transporter GLUT4 from intracellular sites to the cell surface (see Box 1).