

Protection of rCHO Cell Apoptosis by Puerarin under Hyperosmolar Pressure

이윤주, 김익환*
고려대학교
(ihkkim@korea.ac.kr*)

Effect of hyperosmotic pressure on growth and productivity of recombinant Chinese hamster ovary (rCHO) cells that produce human recombinant erythropoietin (rhEPO) were investigated. Osmolality is one of important factors in animal cell culture. Cells were cultivated in batch modes at various osmolalities. It inhibited a cell growth by increasing osmotic pressure and increased cellular specific productivities.

But it caused cellular apoptosis. To prevent the apoptosis, Puerarin was added to medium as an antiapoptotic material.

After the addition, cellular kinetics and specific productivity were measured. And cellular apoptosis was also measured.

These results indicated that Puerarin increased the specific productivity and prolonged the culture span.