Effects of Pluronic F-68 on hGM-CSF production in transgenic suspension cell cultures of *Oryza sativa* L.

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Abstract

Genetically modified rice cells producing human granulocyte-macrophage stimulating factor (hGM-CSF) were cultured with Pluronic F-68, which is known as a permeabilizing agent and shear protectant. When 1, 3, 5 and 10 g/L Pluronic F-68 were added in the culture media, all the concentrations of extracellular hGM-CSF were higher than that of control. Among all the cases, the maximum concentration of extracellular hGM-CSF was obtained at 5 g/L Pluronic F-68. Maximum concentration of hGM-CSF at 55.6 mg/L was recorded at the 16th day after induction. It is 1.82-fold higher value compared to that of control. The high concentration of intracellular hGM-CSF showed the permeabilizing effect of Pluronic F-68. In addition, Pluronic F-68 showed positive effects on cell viability.

References

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