

Imaging in Biology

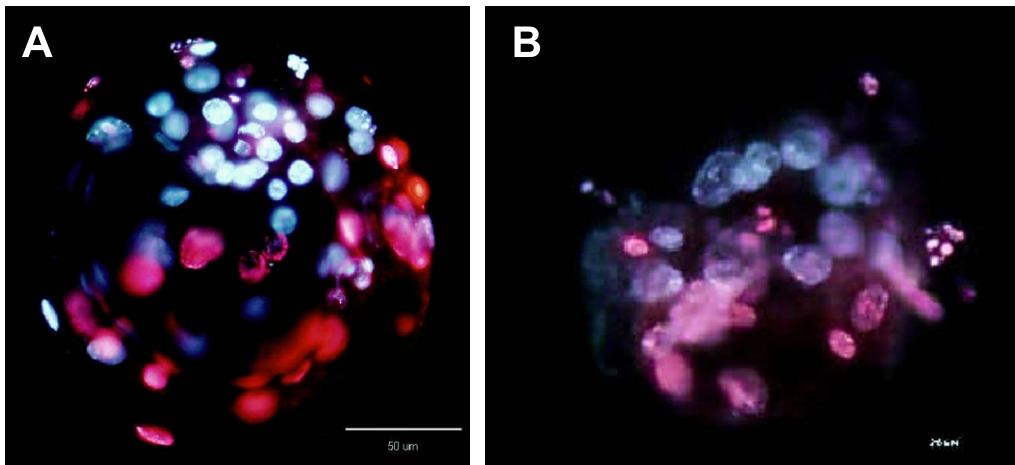
Differential Staining of IVM/IVF and Cloned Sheep Embryo

Hossein Eimani, Ph.D. [‡], Fatemeh Hassani, M.Sc., Azam Dalman, M.Sc.,
Saeed Kazemi Ashtiani, Ph.D., Poopak Eftekhari Yazdi, Ph.D.,
Mojtaba Rezazadeh Valojerdi, Ph.D., Abdolhossein Shahvedi, M.Sc.

Embryology Department, Royan Institute

[‡] Corresponding Address: P.O. Box: 19395-4644, Embryology Department, Royan Institute, Tehran, Iran

Email: info@royaninstitute.org



IVM/IVF Sheep embryo

Cloned sheep embryo

Differential staining of the trophectoderm (TE) and ICM was performed according to the method described previously (1). The zona-intact blastocysts were first incubated in 500 μ l of 100 μ g/ml propidium iodide (PI; Sigma) with 1% Triton X-100 in serum free T6 medium for up to 45s or until trophectoderm visibly changed color to red and shrank slightly under a dissecting microscope. The blastocysts were then immediately transferred into 500 μ l of 25 μ g/ml bisbenzamide (Hoechst 33258; Sigma) in 100% ethanol at 4 °C overnight. Fixed and stained blastocysts were subsequently mounted in glycerol and observed under a microscope with an ultraviolet lamp (Nikon) and excitation filters (460 nm for blue and red fluorescence, and 560 nm for red only).

Reference:

1. Thouas GA, Korfiatis NA, French AJ, Jones GM, Trounson AO. Simplified technique for differential staining of inner cell mass and trophectoderm cells of mouse and bovine blastocyst. *Reprod. Biomed. Online* 2001; 3: 25–29