

Viable Cell Counts Using Trypan Blue

Trypan Blue is a vital dye. The reactivity of trypan blue is based on the fact that the chromophore is negatively charged and does not interact with the cell unless the membrane is damaged. Therefore, all the cells which exclude the dye are viable.

PROCEDURE: Trypan Blue Staining of Cells

1. Place 0.5 ml of a suitable cell suspension (dilute cells in complete medium without serum to an approximate concentration of 1×10^5 to 2×10^5 cells per ml) in a screw cap test tube.
2. Add 0.1 ml of 0.4% Trypan Blue Stain. Mix thoroughly.
3. Allow to stand 5 min at 15 to 30°C (room temperature).
4. Fill a hemocytometer as for cell counting.
5. Under a microscope, observe if non-viable are stained and viable cells excluded the stain.

Reference:

1. Freshney, R. (1987) Culture of Animal Cells: A Manual of Basic Technique, p. 117, Alan R. Liss, Inc., New York.