Cell culture basics

Seven rules of a cell culturist

1. Always disinfect your work area with 70% alcohol and/or UV light before and after cell culture work.
2. Never use the same pipette twice to avoid cross-contamination.
3. Warm your reagents (media, PBS, trypsin) to 25-37°C prior to use.
4. If you touched any surface with a pipette – take another one.
5. Label everything properly.
6. Always use pipette to transfer material, never pour.
7. Never reach over the opened flasks or culture plates.

Preparation of Culture Media

Culture media used for the culture of monocytes/macrophages (X-vivo 10, Cambrex) is a ready to use media and may be stored at 4°C for several months.

Other cell culture media like DMEM, RPMI or Ham's F12 (all from Biochrom) lack some components and has to be completed by addition of:

1. 50 ml inactivated FCS (for 10% FCS content) (Biochrom)
2. 5.5 ml penicillin/streptomycin (Biochrom)

FCS inactivation:

FCS contains complement, which must be "inactivated" prior to use. Once inactivated, the FCS should be aliquotted into 100ml flasks and stored at –20°C until use.

To inactivate FCS, incubate a 500 ml bottle at 56°C in a water bath for 30min. Never incubate longer than 1h. Aliquot immediately and freeze until use.