

Oil Red O Staining

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Abstract

Adipogenic differentiation was induced by using the StemPro adipogenesis differentiation kit (Invitrogen, Carlsbad, CA, USA). WJCMSCs were grown in the adipose-inducing medium for 3 weeks. For Oil Red O staining, after induction, cells were fixed with 10% formalin for at least 1 h at room temperature. Next, cells were stained with the 60% Oil Red O in isopropanol as working solution for 10 min. The proportion of Oil Red O-positive cells was determined by counting stained cells under a light microscope. The final OD value in each group was normalized with the total protein concentrations prepared from a duplicate plate.

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Protocol

Step 1.

Cells were grown in the adipose-inducing medium for 2-3 weeks.

Step 2.

After induction, cells were fixed with 10% formalin for at least 1 h at room temperature.

Step 3.

Cells were stained with the 60% Oil Red O in isopropanol as working solution for 10 min.

Step 4.

The proportion of Oil Red O-positive cells was determined by counting stained cells under a light microscope.

Step 5.

The final OD value in each group was normalized with the total protein concentrations prepared from a duplicate plate.