



Differentiation Protocol

Cat. T0729

Immortalized Human Brown Pre-adipocytes (PAZ6)

Culture conditions recommended for the differentiation of Immortalized Human Brown Pre-adipocytes (PAZ6) to adipocytes:

Adipocyte differentiation medium: PriGrow IV Medium ([TM004](#)) + 5% FBS* + 1% Glutamax-I (Gibco, A1286001) + 15 mM HEPES + 33 μ M Biotin + 17 μ M Pantothenate + 1nM Triiodothyronine + 100 nM Dexamethasone + 1 μ M Pioglitazone + 500 nM Insulin ([Z101065](#)) + 0.25mM IBMX (for the first 4 days of differentiation) and 1% Penicillin/Streptomycin ([G255](#)).

Seed preadipocyte (PAZ6) cells at a density of 5,000 to 10,000 cells/cm², according to the Growth Conditions specified on the T0729 datasheet. At confluence, change medium to the adipocyte differentiation medium, above. Wash cells with PBS(1X) and add fresh adipocyte differentiation medium every 2 days as the culture medium will rapidly become acidic. Full differentiation of cells takes approximately 14 days; it is normal to observe cell fragments during the first week of culture due to IBMX.

Adipocytes do not freeze well. Therefore, it is recommended that these cells initially be expanded and back up vials produced for recovery purposes. PAZ6 cells should differentiate reasonably well until passage 15-18.

This protocol has been adapted from the publication: Zilberfarb, V. "Human immortalized brown adipocytes express functional beta3-adrenoceptor coupled to lipolysis" Journal of Cell Science 110:801-807 (1997). **abm does not warrant the accuracy of such information; all protocols must be experimentally tested by the end-user.**

*Batch testing of FBS should be conducted as differentiation results may vary per batch.

Updated on March 21, 2024