Human Fetal Osteoblast Progenitor Cell Lines (hFOB)

Conditionally Immortalized Human Osteoblastic Cell Line: Normal human bone cells were stably transfected with a gene encoding a temperature-sensitive mutant (tsA58) of SV40 large T antigen; cells proliferate as if immortalized at 33.5C degrees but differentiate at 39.5C degrees; hFOB cells show normal bone cell characteristics with regard to responses to dihydroxyvitamin D3 and PTH, BMP’s, alkaline phosphatase, osteocalcin, parathyroid hormone, bone MATRIX production, and mineralization; differentiated post-confluent hFOB cells show high levels of osteopontin, osteonectin, bone sialoprotein and type-1 collagen. The hFOB cell line is a clonal, conditionally immortalized human fetal cell line capable of osteoblastic differentiation and bone formation, that provides a homogeneous, rapidly proliferating model system for studying human osteoblast differentiation, physiology, and effects of cytokines on osteoblasts. They are an appropriate compliment to the FOCER cell line and for studies involving agents which regulate osteoblasts. (See also Mayo Case No. 1995-155)

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