

## Human hair follicle dermal component cells can differentiate into chondrogenic but not osteogenic lineage

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### Abstract

The hair follicle epithelium has recently been the subject of a great deal of investigation, but so now, the follicle dermis has recently been largely overlooked as a source of stem cells<sup>1</sup>. The dermal component of the hair follicle is believed to play a fundamental role in the induction and maintenance of epithelial differentiation<sup>2</sup>. The dermal component of the hair follicle, namely the dermal papilla (DP) and dermal sheath (DS), are derived from the same the mesenchymal cells<sup>3</sup>. The DS can be a source of regenerated DP after removal of the original papilla. And the adult hair follicle DP and DS cells are developmentally active cell populations with a proven role in adult hair follicle-cycling activity and unique inductive power<sup>1</sup>.

In this study, we isolated and cultivated human hair follicle dermal cells in previous reported culture condition. And then, these cells at 6th passage were cultivated under osteogenic and chondrogenic conditions. As results these cells could differentiate into chondrogenic but not osteogenic lineage.

### References

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