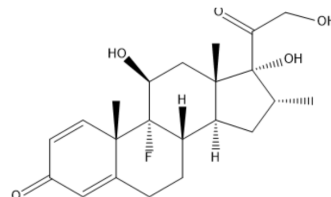


## Dexamethasone (GMP)

<b>Cat. No.:</b>	HY-14648G
<b>CAS No.:</b>	50-02-2
<b>Molecular Formula:</b>	C <sub>22</sub> H <sub>29</sub> FO <sub>5</sub>
<b>Molecular Weight:</b>	392.46
<b>Target:</b>	Glucocorticoid Receptor; ADC Cytotoxin
<b>Pathway:</b>	Immunology/Inflammation; Vitamin D Related/Nuclear Receptor; Antibody-drug Conjugate/ADC Related
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Dexamethasone (Hexadecadrol) (GMP) is <a href="#">Dexamethasone</a> (HY-14648) produced by using GMP guidelines. GMP small molecules works appropriately as an auxiliary reagent for cell therapy manufacture. Dexamethasone is an agonist of glucocorticoid receptor <sup>[1][2][3][4]</sup> .
<b>In Vitro</b>	<p>Dexamethasone (GMP) (100 nM; 10 d) increases myotubes formation and cytoplasmic lipid droplets accumulation of RCJ 3.1 cells<sup>[1]</sup>.</p> <p>Dexamethasone (GMP) (10 nM-1 μM; 0-6 d) induces osteogenesis of chick periosteum cells with an optimal concentration of 100 nM<sup>[2]</sup>.</p> <p>Dexamethasone (GMP) (10 μM) induces osteoblastic differentiation<sup>[3]</sup>.</p> <p>Dexamethasone (GMP) (10 nM) stimulates differentiation of odontoblast-like cells<sup>[4]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### CUSTOMER VALIDATION

- Cell. 2023 Jun 22;186(13):2823-2838.e20.
- Nat Genet. 2024 Mar 7.
- ACS Nano. 2023 Oct 27.
- Chem Eng J. 2023 Aug 6, 145212.
- Adv Sci (Weinh). 2022 Sep;9(26):e2202505.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

### REFERENCES

- [1]. Grigoriadis AE, et al. Differentiation of muscle, fat, cartilage, and bone from progenitor cells present in a bone-derived clonal cell population: effect of dexamethasone. J Cell Biol. 1988 Jun;106(6):2139-51.
- [2]. Tenenbaum HC, Heersche JN. Dexamethasone stimulates osteogenesis in chick periosteum in vitro. Endocrinology. 1985 Nov;117(5):2211-7.

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[3]. Rickard DJ, et al. Induction of rapid osteoblast differentiation in rat bone marrow stromal cell cultures by dexamethasone and BMP-2. Dev Biol. 1994 Jan;161(1):218-28.

[4]. Alliot-Licht B, et al. Dexamethasone stimulates differentiation of odontoblast-like cells in human dental pulp cultures. Cell Tissue Res. 2005 Sep;321(3):391-400.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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