Product Data Sheet

AM580 (GMP)

Target:

Cat. No.: HY-10475G CAS No.: 102121-60-8 Molecular Formula: $C_{22}H_{25}NO_{3}$ Molecular Weight: 351.44 RAR/RXR

Pathway: Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	AM580 (CD336) (GMP) is AM580 (HY-10475) produced by using GMP guidelines. GMP small molecules works appropriately as an auxiliary reagent for cell therapy manufacture. AM580 is a selective RAR α agonist ^{[1][2][3][4]} .
In Vitro	AM580 (GMP) (0.05 μ M) induces mouse embryonic fibroblasts (MEFs) convert into chemically induced pluripotent stem cells (CiPSCs) with the adding in stage I and stage II medium ^[1] . AM580 (GMP) (0-10 μ M; 4 d) induces SH-SY5Y cells develop into neuron-like cells ^[2] . AM580 (GMP) shows powerful and selective cyto-differentiating effects on acute promyelocytic leukemia cells ^[3] . AM580 (GMP) (2.5 μ M; 4 d) induces myeloid progenitors develop into neutrophils ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- J Hazard Mater. 2022 Aug 5;435:129024.
- Allergy. 2021 Aug 8.
- EMBO J. 2021 Apr 28;e106771.
- J Exp Clin Cancer Res. 2021 Apr 26;40(1):141.
- Cancer Res. 2023 May 15;CAN-22-3977.

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REFERENCES

[1]. Zhao T, et al. Single-Cell RNA-Seq Reveals Dynamic Early Embryonic-like Programs during Chemical Reprogramming. Cell Stem Cell. 2018 Jul 5;23(1):31-45.e7.

[2]. Cai A, et al. Neuroblastoma SH-SY5Y Cell Differentiation to Mature Neuron by AM580 Treatment. Neurochem Res. 2022

[3]. Gianní M, et al. AM580, a stable benzoic derivative of retinoic acid, has powerful and selective cyto-differentiating effects on acute promyelocytic leukemia cells. Blood. 1996 Feb 15;87(4):1520-31.

4]. Brok-Volchanskaya VS, et al. Effective and Rapid Generation of Functional Neutrophils from Induced Pluripotent Stem Cells Using ETV2-Modified mRNA. Stem Cell Reports. 2019 Dec 10;13(6):1099-1110.					
Caution: Product has not been fully validated for medical applications. For research use only.					
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Page 2 of 2 www.MedChemExpress.com