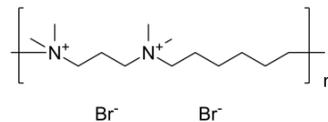


Hexadimethrine bromide

Cat. No.:	HY-112735
CAS No.:	28728-55-4
Molecular Formula:	$(C_{13}H_{30}N_2)_n.Br_2$
Target:	Others
Pathway:	Others
Storage:	4°C, stored under nitrogen, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen, away from moisture)



SOLVENT & SOLUBILITY

In Vitro	H ₂ O : ≥ 125 mg/mL DMSO : 5 mg/mL (Need ultrasonic and warming) * "≥" means soluble, but saturation unknown.
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 0.5 mg/mL (Infinity mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 0.5 mg/mL (Infinity mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: 0.5 mg/mL (Infinity mM); Clear solution; Need warming

BIOLOGICAL ACTIVITY

Description	Hexadimethrine bromide is a cationic polymer discovered to enhance retroviral transduction.
In Vitro	Hexadimethrine bromide inhibits human mesenchymal stem cell proliferation during lentiviral transduction. Hexadimethrine bromide is considered non-toxic at low concentrations, but has been found to negatively affect cell proliferation in some cell types at concentrations greater than 10 μg/mL. Trypsinized cells exposed to Hexadimethrine bromide are visibly larger in size when viewed under the microscope ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay ^[1]	Trypsinized cells are washed and resuspended in medium at 2×10 ⁴ cells/mL with or without rhFGF-2 (final concentration=10 ng/mL, PeproTech) and with or without Hexadimethrine bromide at a final Hexadimethrine bromide concentration of 1, 4, or 8 μg/mL. The different conditions are seeded in 96-well plates at 1×10 ³ cells in 50 μL per well in triplicate and cultured at 37°C, 5% CO ₂ . After 6, 9, or 24 hr, the medium is changed and subsequent medium changes occurred every 3-4 days with 50 μL of ± FGF-2 medium (10 ng/mL). Plates are harvested on day 4, 7, 14, and 21 by removing the medium and placing the plates in the -80°C freezer until the day of analysis. The CyQUANT assay is then performed on the wells ^[1] .
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MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Adv Funct Mater. 2019, 1808556.
- Biomed Pharmacother. 2019 Nov 9;121:109578.
- Cell Signal. 2019 Mar 5;58:119-130.

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REFERENCES

[1]. Lin P, et al. Polybrene inhibits human mesenchymal stem cell proliferation during lentiviral transduction. PLoS One. 2011;6(8):e23891.

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

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