Gadolinium chloride

Cat. No.: HY-103314

CAS No.: 10138-52-0

Molecular Formula: Cl_3Gd

Molecular Weight: 263.61

Target: CaSR

Pathway: GPCR/G Protein

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month

SOLVENT & SOLUBILITY

In Vitro

1M HCl : 100 mg/mL (379.35 mM; ultrasonic and adjust pH to 1 with HCl)

H_2O : < 0.1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble)

DMSO : < 1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble or slightly soluble)

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	3.7935 mL	18.9674 mL	37.9348 mL
5 mM	0.7587 mL	3.7935 mL	7.5870 mL
10 mM	0.3793 mL	1.8967 mL	3.7935 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Gadolinium chloride is a specific calcium-sensing receptor (CaSR) agonist. Gadolinium chloride can be used for the research of cardiovascular disease[1].

IC_{50} & Target

CaSR[1]

In Vitro

Gadolinium chloride (30 μM; 15 minutes; H9c2 cells) results in increased Bax expression and caspase-3 activation, and decreased Bcl-2 expression in CsA-induced cells[1].

In vitro, GdCl3, a CaSR agonist, has been shown to promote the apoptosis of myocardial cells, which increases ERK1/2 phosphorylation and activates caspase-3[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis[1]

Cell Line:	H9c2 cells
Concentration:	30 μM
Incubation Time:	15 minutes
Result:	Resulted in increased Bax expression and caspase-3 activation, and decreased Bcl-2 expression in CsA-induced cells.

REFERENCES

[1]. Li X, et al. Calcium Oxalate Induces Renal Injury through Calcium-Sensing Receptor. Oxid Med Cell Longev. 2016;2016:5203801.

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