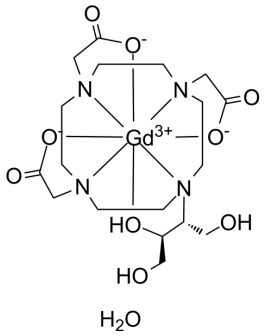
Gadobutrol hydrate

Cat. No.:	HY-16217A
CAS No.:	198637-52-4
Molecular Formula:	$C_{18}H_{33}GdN_4O_{10}$
Molecular Weight:	622.73
Target:	Biochemical Assay Reagents
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Gadobutrol (ZK 135079) hydrate is a nonionic paramagnetic macrocyclic gadolinium-based contrast agent that can be used for magnetic resonance imaging (MRI)[1].

In Vitro

Gadobutrol hydrate leads to a gradual decrease in cell density with increasing concentration under neutron irradiation[1].

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

Cell Viability Assay[1]

Cell Line:	Human melanoma cell line Sk-Mel-28
Concentration:	0-30 mM
Incubation Time:	1 hour
Result:	Showed a decrease in cell density to 26% at 30 mM while to 80% with no gadobutrol under neutron irradiation.

In Vivo

Gadobutrol hydrate (intravenous injection, 200 mM, once) can significantly enhance intracerebroventricular cell signaling in female C57BL/6 N mice[2].

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Animal Model:	Female C57BL/6 N mice, 11-13 weeks, 21-23 g[2]
Dosage:	200 mM
Administration:	Intravenous injection; once
Result:	Enhanced cells signal in the habenula, hippocampal formation, and locus coeruleus.

CUSTOMER VALIDATION

- Molecules. 2021 Aug 24;26(17):5115.

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REFERENCES

[1]. B Hofmann, et al. Gadolinium neutron capture therapy (GdNCT) of melanoma cells and solid tumors with the magnetic resonance imaging contrast agent Gadobutrol. Invest Radiol. 1999 Feb;34(2):126-33.

[2]. Takashi Watanabe, et al. Gadobutrol enhances T1-weighted MRI of nerve cells. Toxicol Lett. 2019 Jun 15;308:17-2

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