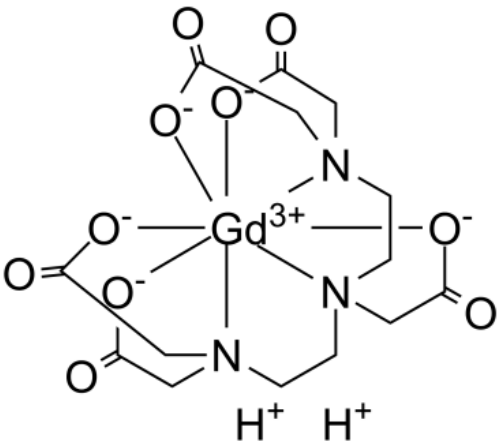
Product Data Sheet

Product Name: Gadopentetic acid
Cat. No.: GC36099

Chemical Properties

Cas. No.	80529-93-7		
SMILES	O=C1[O-][Gd+3]23([O-]4)([O-]5)([O-]6)([O-]7)[N](CC[N]2(CC5=O)CC4=O)(CC[N]3(CC7=O)CC6=O)C1.[H+].[H+]		
Formula	$C_{14}H_{20}GdN_3O_{10}$	M.Wt	547.57
Solubility	Water: 100 mg/mL (182.63 mM); DMSO: < 1 mg/mL (insoluble or slightly soluble)	Storage	Store at -20°C, sealed storage, away from moisture and light
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

Gadopentetic acid (Gd-DTPA) is an paramagnetic contrast agent commonly implemented by a bolus intravenous injection (i.v.) in Dynamic contrast-enhanced MRI (DCE-MRI) studies. The initial concentration of Gadopentetic acid (Gd-DTPA) in the plasma ([Gd-DTPA0]) is an important parameter for DCE-MRI. [Gd-DTPA0] is related to the administered bolus dose and varies with

subjects. A bolus of 0.025 mmol/kg Gd-DTPA offers shorter acquisition time and less exposure of subjects, with a half-life of 37.3 mins, a mean residence time of 53.8 mins, and an AUC of 3.37 ± 0.47 mmol/min/L[1].

[1]. Wan C, et al. Gd-DTPA-induced dynamic metabonomic changes in rat biofluids. Magn Reson Imaging. 2017 Dec;44:15-25. [2]. Taheri S, et al. Analysis of pharmacokinetics of Gd-DTPA for dynamic contrast-enhanced magnetic resonance imaging. Magn Reson Imaging. 2016 Sep;34(7):1034-40.

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