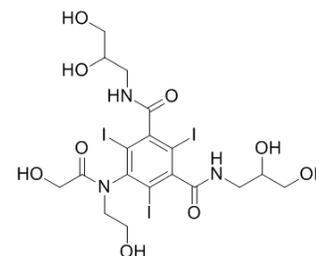


## Ioversol

Cat. No.:	HY-B1410
CAS No.:	87771-40-2
Molecular Formula:	C <sub>18</sub> H <sub>24</sub> I <sub>3</sub> N <sub>3</sub> O <sub>9</sub>
Molecular Weight:	807.11
Target:	Others
Pathway:	Others
Storage:	4°C, protect from light



### Solvent & Solubility

#### In Vitro

DMSO : ≥ 100 mg/mL (123.90 mM)

\* "≥" means soluble, but saturation unknown.

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.2390 mL	6.1949 mL	12.3899 mL
	5 mM	0.2478 mL	1.2390 mL	2.4780 mL
	10 mM	0.1239 mL	0.6195 mL	1.2390 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Ioversol is a nonionic iodinated contrast agent.

#### In Vitro

Ioversol (100 mg iodine/ml) exposure induces significantly increased lactate dehydrogenase release and decreased 3-(4,5-dimethyl-2-thiazolyl)-2,5-diphenyl tetrazolium bromide conversion in NRK-52E cells. Ioversol significantly increases apoptosis and caspase-3 protein expression in the NRK-52E cells exposed to ioversol for 4 h. Ioversol treatment induces a significant increase in [Ca<sup>2+</sup>]<sub>i</sub> and intracellular ROS<sup>[1]</sup>.

#### In Vivo

In comparison with iohalamate, ioversol has a greatly reduced propensity to stimulate the release of endothelin, from cultured cells and when injected into anesthetized rats. Ioversol produces less renal vasoconstriction than does iohalamate, in control and in USIC rats, and the development of radiocontrast nephropathy, assessed by creatinine clearance and morphologic damage to the renal medulla, is largely avoided<sup>[2]</sup>.

### PROTOCOL

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### Cell Assay <sup>[1]</sup>

Cell viability is assessed by using the MTT uptake assay. The conversion of MTT, a tetrazolium salt, into formazan depends on the activity of a group of mitochondrial dehydrogenases and, thus, is an indicator of cell metabolic activity. The color of MTT tetrazole salt is measured with a spectrophotometer at the wavelength of 570 nm. Briefly, fresh MTT solution (10 mg/mL in 1× PBS) is added (1:20 volume of medium) after removing the medium and the cells are incubated for 1.5 h. The cells are lysed and purple formazan dissolved into the solution by overnight incubation with MTT lysis buffer. The results are expressed as the percentage of undamaged control cells, assuming the absorbance of control wells as 100%.

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

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### REFERENCES

- [1]. Yang D, et al. Selective inhibition of the reverse mode of Na(+)/Ca(2+) exchanger attenuates contrast-induced cell injury. *Am J Nephrol.* 2013;37(3):264-73. doi: 10.1159/000348526. Epub 2013 Mar 13.
- [2]. Heyman SN, et al. Effects of ioversol versus iohalamate on endothelin release and radiocontrast nephropathy. *Invest Radiol.* 1993 Apr;28(4):313-8.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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