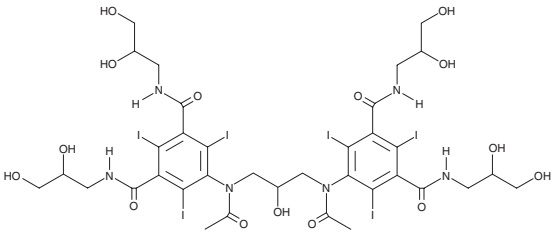
PRODUCT INFORMATION

Iodixanol

Item No. 35020

CAS Registry No.:	92339-11-2
Formal Name:	5,5′-[(2-hydroxy-1,3-propanediyl) *bis*(acetylimino)]*bis*[N,N′-*bis*(2,3-dihydroxypropyl)-2,4,6-triiodo-1,3-benzenedicarboxamide
MF:	$C_{35}H_{44}I_6N_6O_{15}$
FW:	1,550.2
Purity:	≥95% (mixture of isomers)
UV/Vis.:	λ_{max}: 246 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Iodixanol is supplied as a solid. A stock solution may be made by dissolving the iodixanol in the solvent of choice, which should be purged with an inert gas. Iodixanol is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of iodixanol in these solvents is approximately 15 and 30 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of iodixanol can be prepared by directly dissolving the solid in aqueous buffers. The solubility of iodixanol in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Iodixanol is a nonionic, water-soluble contrast reagent.[1] It induces apoptosis and mitophagy in renal epithelial cells in a rat model of contrast-induced acute kidney injury.[2] Iodixanol has also been used as a density gradient medium in the fractionation of plasma lipoproteins.[3] Formulations containing iodixanol have been used for the visualization of arteries, veins, the urinary tract, head, and body using X-ray and computed tomography (CT) scan imaging techniques.

References

1. Almén, T. Visipaque - a step forward: A historical review. *Acta Radiol.* **57(5)**, e47-e63 (1995).
2. Cheng, W., Zhao, F., Tang, C.-Y., *et al*. Comparison of iohexol and iodixanol induced nephrotoxicity, mitochondrial damage and mitophagy in a new contrast-induced acute kidney injury rat model. *Arch. Toxicol.* **92(7)**, 2245-2257 (2018).
3. Graham, J.M., Higgins, J.A., Gillott, T., *et al*. A novel method for the rapid separation of plasma lipoproteins using self-generating gradients of iodixanol. *Atherosclerosis* **124(1)**, 125-135 (1996).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM