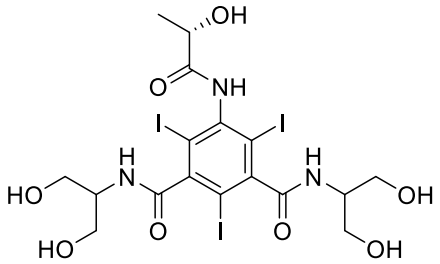
Product data sheet

MedKoo Cat#: 328714 Name: Iopamidol CAS: 60166-93-0 Chemical Formula: $C_{17}H_{22}I_3N_3O_8$ Exact Mass: 776.8541 Molecular Weight: 777.0894	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.



1. Product description:
Iopamidol, also known as Gastromiro and SQ-13396, is a non-ionic, water-soluble contrast agent which is used in myelography, arthrography, nephroangiography, arteriography, and other radiological procedures.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	75.0	96.51
Water	100.0	128.69

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	1.29 mL	6.43 mL	12.87 mL
5 mM	0.26 mL	1.29 mL	2.57 mL
10 mM	0.13 mL	0.64 mL	1.29 mL
50 mM	0.03 mL	0.13 mL	0.26 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Aime S, Calabi L, Biondi L, De Miranda M, Ghelli S, Paleari L, Rebaudengo C, Terreno E. Iopamidol: Exploring the potential use of a well-established x-ray contrast agent for MRI. Magn Reson Med. 2005 Apr;53(4):830-4. doi: 10.1002/mrm.20441. PMID: 15799043.

In vivo study

1. Longo DL, Dastrù W, Digilio G, Keupp J, Langereis S, Lanzardo S, Prestigio S, Steinbach O, Terreno E, Uggeri F, Aime S. Iopamidol as a responsive MRI-chemical exchange saturation transfer contrast agent for pH mapping of kidneys: In vivo studies in mice at 7 T. Magn Reson Med. 2011 Jan;65(1):202-11. doi: 10.1002/mrm.22608. PMID: 20949634.
2. Rovai D, Ghelardini G, Lombardi M, Trivella MG, Nevola E, Taddei L, Michelassi C, Distante A, DeMaria AN, L'Abbate A. Myocardial washout of sonicated iopamidol reflects coronary blood flow in the absence of autoregulation. J Am Coll Cardiol. 1992 Nov 15;20(6):1417-24. doi: 10.1016/0735-1097(92)90257-n. PMID: 1430693.

7. Bioactivity
Biological target:

Iopamidol is a nonionic, X-Ray iodinated contrast agent (CA) for a wide variety of diagnostic applications. Iopamidol contains amide and hydroxyl functionalities that can be exploited for the generation of the chemical exchange saturation transfer (CEST) contrast.

Product data sheet

In vitro activity

The body of data collected so far on the phantom containing iopamidol clearly indicates that this molecule can act as either a T2- or a CEST-MRI contrast agent. On this basis, it is of interest to ascertain the minimum concentration of iopamidol required to detect a contrast in the two imaging modalities.

Reference: Magn Reson Med. 2005 Apr;53(4):830-4. https://pubmed.ncbi.nlm.nih.gov/15799043/

In vivo activity

Upon injection of Iopamidol into healthy mice, it has been possible to acquire pH maps of kidney regions. Furthermore, it has been also shown that the proposed method is able to report about pH-changes induced in control mice fed with acidified or basified water for a period of a week before image acquisition.

Reference: Magn Reson Med. 2011 Jan;65(1):202-11. https://pubmed.ncbi.nlm.nih.gov/20949634/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.