

Kit for the Preparation of ^{99m}Tc-glucarate

Cat # G-1001

Product Description: This cold kit formulation is optimized for the preparation of the small radiopharmaceutical, ^{99m}Tc-glucarate. The active ingredient in the kit is glucarate and the proposed chemical structure of ^{99m}Tc-glucarate is shown in Figure 1.

Applications: ^{99m}Tc-glucarate is a SPECT tracer for tumor imaging. Cheng et. al. have obtained positive imaging results with ^{99m}Tc-glucarate in mice bearing four different tumor types (breast, pancreatic, renal and colorectal cancer). In a direct comparison study using the same two breast tumored animals, SPECT images obtained with ^{99m}Tc-glucarate compared favorably with PET images obtained with ¹⁸F-FDG. Meng et. al. also reported that this agent can be used to diagnose non-small cell lung carcinoma and can be used to distinguish EGFR TK-1 - sensitive from resistant Strains. In addition, ^{99m}Tc-glucarate cleared more rapidly and did not show the high backgrounds of ¹⁸F-FDG except in kidneys. For reasons of convenience and cost, ^{99m}Tc-glucarate and SPECT imaging maybe a useful alternative to ¹⁸F-FDG and PET at least in animal studies.

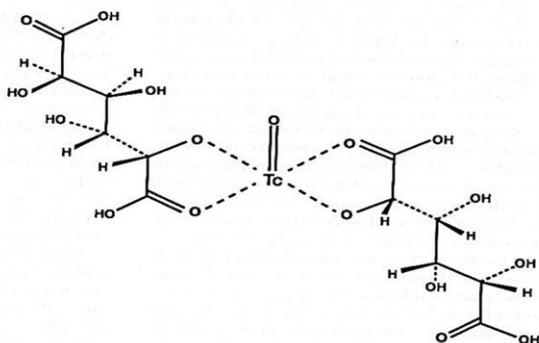


Fig 1: Proposed chemical structure of Tc-99m glucarate

Catalog #	Product Name	Size	Price (USD)
G-1001	glucarate- Kit	12.5 mg of glucarate	\$299.00

Product Formulation Procedure: For radiolabeling, ~ 30mCi of ^{99m}Tc-pertechnetate in 1.0 mL saline is added to the vial and excess vial pressure vented. The vial is incubated at room temperature for 20 mins and the radiolabel incorporation and radiochemical purity is assessed either by ITLC or radio-HPLC analysis. Typical radiopurity of ^{99m}Tc-glucarate is >95%. Typical dose per rat is ~3-5 mCi and mouse dose is 1 mCi.

References: Cheng D et. al. Current Radiopharmaceuticals 4: 5-9.(2011); Meng L. et al. Nuclear Medicine and Biology. 42(7):608-13 (2015). More references: please see link: <http://www.mtarget.com/mm5/pdfs/Glucaratepublications.pdf>

For further information or to place an order please contact Dr. Brian Gray by email: briangray@mtarget.com or phone: 610-738-7938



MOLECULAR TARGETING TECHNOLOGIES, INC.

833 Lincoln Ave., Unit 9
West Chester, PA 19380
P: 610.738.7938 F: 610.738.7928
Contact us: info@mtarget.com; www.mtarget.com

Version 1: January 4, 2017