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# Radium Ra 224-labeled Calcium Carbonate Microparticles

National Cancer Institute

## Source

National Cancer Institute. *Radium Ra 224-labeled Calcium Carbonate Microparticles*. NCI Thesaurus. Code C159537.

A radiopharmaceutical composed of biodegradable calcium carbonate microspheres labeled with the alpha-emitting radioisotope radium Ra 224, with antineoplastic activity. Upon intraperitoneal (IP) administration of the radium Ra 224-labeled calcium carbonate microparticles, Ra 224 kills tumor cells through local emission of high energy alpha particles, causing DNA double-strand breaks. The short range effects of alpha emission allows for localized DNA damage with limited toxicity to nearby healthy tissue.