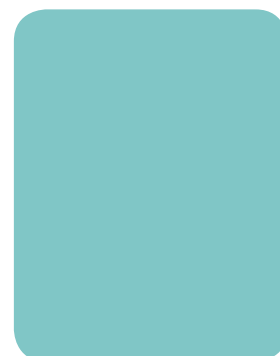


ISOTOPES



Actinium-225

Radiochemical

19;16;5;3;20;18;15;14

Method of production: Thorium-229 (Th-229) decay.

Nuclide	Ac-225
Half-life	9.91 days
Decay Mode	Alpha/Beta Decay
Maximum Beta Energy	5.935 MeV
Chemical form	Ac ³⁺ nitrate in solid form
Appearance	Slight yellowish tinted, layered film
Radionuclidic Purity	- 225Ra ≤ 0.02%, 224Ra ≤ 0.02% - Sum activity of other isotopes ≤ 0.008%
Radiochemical Purity	≥ 99.9% as ²²⁵ Ac(NO ₃) ₃
Non-active impurities	< 10 µg/mCi
Radionuclidic ID	- 218 keV gamma – daughter (Fr-221) major peak - 441 keV gamma – daughter (Bi-213) major peak or - 5935 KeV Alpha (Ac-225) <small>Note: The specification will be based on the use of either gamma or alpha spectroscopy for the measurement.</small>
Radiolabeling Yield	≥ 99.0% (based on radiolabeling with DOTA-derivate)
Vial Activity ¹	0.1mCi - 5mCi at ART
Activity per Vial	90-110% of ²²⁵ Ac activity stated on label at ART
Shelf-life	Minimum of 15 days from date of manufacture. <small>Note: Upon completion of stability studies, the final published shelf will be determined.</small>
Packaging	2 mL conical bottom vial or 10 mL flat bottom vial <small>Note: The final vial(s) to be used will be dependent on the outcome of the stability studies.</small>