Reproducibility of neutron activated Sm-153 oral dose formulations intended for human administration

Type: Article

Abstract:

Neutron activation of Sm-152 offers a method of radiolabeling for the in vivo study of oral dose formulations by gamma scintigraphy. Reproducibility measurements are needed to ensure the robustness of clinical studies. 204 enteric-coated guaifenesin core tablets (10 mg of Sm(2)O(3)) were irradiated by thermal neutrons to achieve 1 MBq at 48 h. Administered activities were 0.86 +/- 0.03 MBq. Good reproducibility (CV=3.5%) was observed over 24 weeks ensuring that volunteer doses were within the dose reference level of 0.8 mSv.

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Gamma scintigraphy, Neutron activation, Oral dosage formulation, Reproducibility, Sm-153, gamma-scintigraphic evaluation, nuclear-medicine, drug-delivery, dosage, forms, tablets, capsules, colon

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