

[54] **BREATH TEST FOR PANCREATIC EXOCRINE FUNCTION**

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[58] Field of Search **435/19; 424/9; 436/56, 436/57, 900, 133**

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[57] **ABSTRACT**

Pancreatic exocrine function is determined by a breath test method wherein a radioactive labelled ester such as cholesterol octanoate is ingested in the body and is hydrolyzed by pancreatic enzymes and oxidized to labelled Co₂ which is expired in the breath. The rate of appearance of labelled Co₂ in the breadth is a function of the rate of hydrolysis by pancreatic enzymes which in turn reflects pancreatic exocrine function. Before ingestion, the ester is mixed with a carrier substrate such as a triglyceride to form a lipid matrix containing the ester and the lipid matrix is suspended in aqueous solution. To insure that low levels of expired labelled Co₂ is due to pancreatic exocrine insufficiency, the ester is ingested simultaneously with a differentially labelled unesterified carboxylic acid or the test method is repeated with an added step of simultaneously ingesting the ester with exogenously provided pancreatic enzymes.

12 Claims, 3 Drawing Figures