Pancreatic elastase-1 (PE1) is a stable protease secreted exclusively by the human pancreas that serves as a non-invasive, reliable, and convenient marker for identifying pancreatic exocrine insufficiency. Clinical indications for assessing PE1 include diarrhea; weight loss or other possible symptoms of maldigestion; diarrhea-predominant irritable bowel syndrome; diabetes; celiac disease or other malabsorption disorders; cystic fibrosis; aging; low bone density; inflammatory bowel disease; obesity; and gallstones. PE1 values of 200 mcg/g to >500 mcg/g reflect normal exocrine pancreatic function; values between 100 mcg/g to 200 mcg/g reflect moderate-to-mild exocrine pancreatic insufficiency; and values <100 mcg/g reflect severe exocrine pancreatic insufficiency.