PANCREATIC ISLET SEPARATION METHOD, AND PROTECTIVE SOLUTION FOR PROTECTING PANCREATIC ISLET TISSUE

ABSTRACT

The disclosed islet isolation method comprises: an injection step of injecting a preservation solution into the pancreatic duct of an excised pancreas; a preservation step of immersing the pancreas into an immersion fluid for preservation; a digestion step of breaking down the pancreas to provide pancreatic tissue; and a purification step of immersing the pancreatic tissue in a purification solution to provide islets. The digestion step consists of: an enzyme injection step of injecting an enzyme solution containing a digestion enzyme into the pancreas; a digestion initiation step of activating the digestion enzyme; a digestion termination step of inactivating the digestion enzyme; and a collection step of collecting the broken-down pancreatic tissue. The islet isolation method is characterized in that, by adding a neutrophil elastase inhibitor to the system before the digestion initiation step, the neutrophil elastase inhibitor is present inside the pancreas at the time point of starting the digestion initiation step. By using the above method and a protective solution which can be used in the method, islets having a size and shape suitable for transplantation can be obtained in high yields.

No Suitable Figure