Demonstration of the fuzzy surface coat of rat intestinal microvilli by freeze-etching.

Swift JG, Mukherjee TM

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Abstract

In freeze-etch replicas of epithelial cells of rat rectum, the fuzzy surface coat is composed of discrete filaments which are aligned in parallel with each other and with the long axes of the microvilli.
aligned in parallel with each other and with the long axes of the microvilli.

Full Text

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samples of the RIC group with almost regular microvilli and subcellular organelles (Figure 6). Correlating well with the ultrastructural changes assessed by electron microscopy, intestinal barrier function was better preserved following iRIC and THI. Animals receiving bioluminescent E. coli before IRI had a markedly increased extra-intestinal luciferase activity after 6-h of reperfusion, especially in the liver and the lungs as well as in the mesenteric lymph nodes (Figure 6). No relevant extra-intestinal activity was observed in the animals of the RIC group (Figure 6), suggesting the presence...
intestinal stem cell begins the replicative nature of the cells of the microvillus is one of symmetrical division, with identical daughter cells as both move out of the stem cell niche (Figure 2.19). [88], probably due to the surface coating of anti-EpCAM on SiNPs. They also applied the nanostructured microfluidic platform for adhesion assays of endothelial cells [89]. Figure 1.4. The glycocalyx on the luminal surface of the intestinal villi covered the top of the microvilli of the epithelial cells and were well preserved in the specimens treated with an alkaline buffer (pH11.0). The glycocalyx was observed as filamentous structures, 7 to 15nm thick in diameter. These filaments repeatedly branched and anastomosed with neighboring ones to form an actual network or plexus as a whole, in contrast with superimposed images in transmission electron microscopy (TEM) which suggested that such anastomoses were pseudo-networks. Swift JG, Mukherjee TM: Demonstration of the fuzzy surface coat of rat intestinal microvilli by freeze-etching. J Cell Biol 69: 491-494 (1976). Trier JS: The surface coat of gastrointestinal epithelial cells. Gastroenterology 56: 618-622 (1969).