

Fig.2. Hepatocytes and islets morphologies at the end of the experiments: **(A)** hepatocytes monoculture with insulin (ITS+), **(B)** and **(C)** hepatocytes monoculture without insulin (ITS-), **(D)** hepatocytes in coculture with islets, **(E)** islets monocultures and **(F)** islets in coculture with hepatocytes.

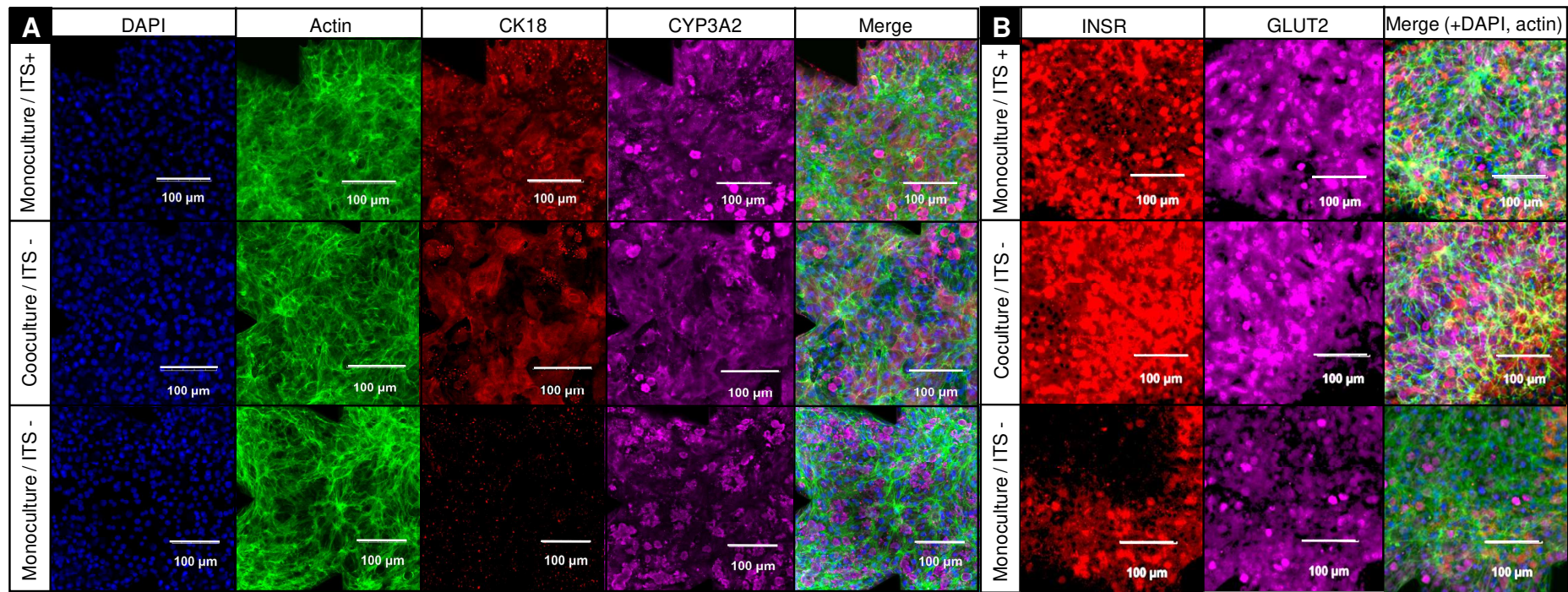


Fig.3. Immunostainings of hepatocytes in monoculture with insulin, without insulin and coculture with islets at the end of the experiments: **(A)** DAPI, actin, CK18, CYP3A2 and merge; **(B)** INSR, GLUT2 and merge with DAPI and actin.

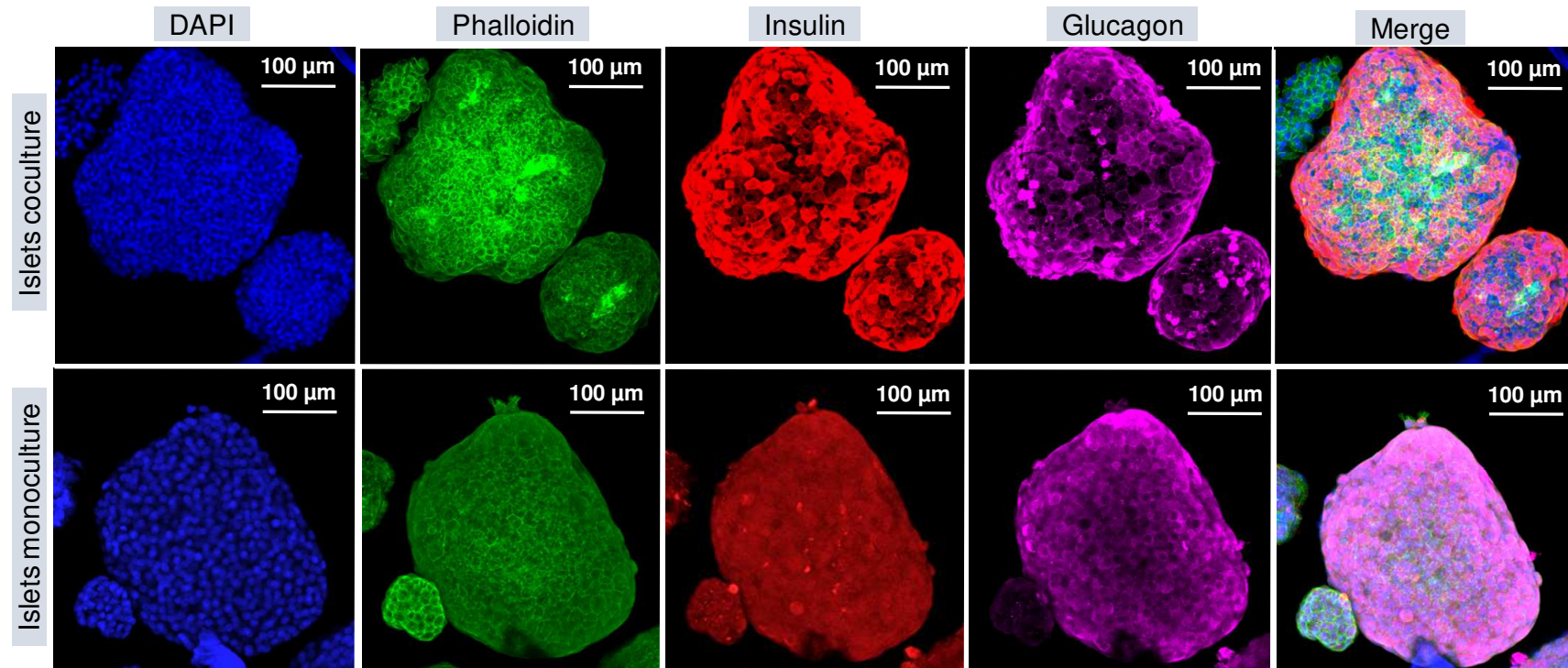


Fig.4. DAPI, phalloidin, insulin, glucagon and merge immunostainings of islets cultivated in monoculture and coculture with hepatocytes (at end of the experiments).

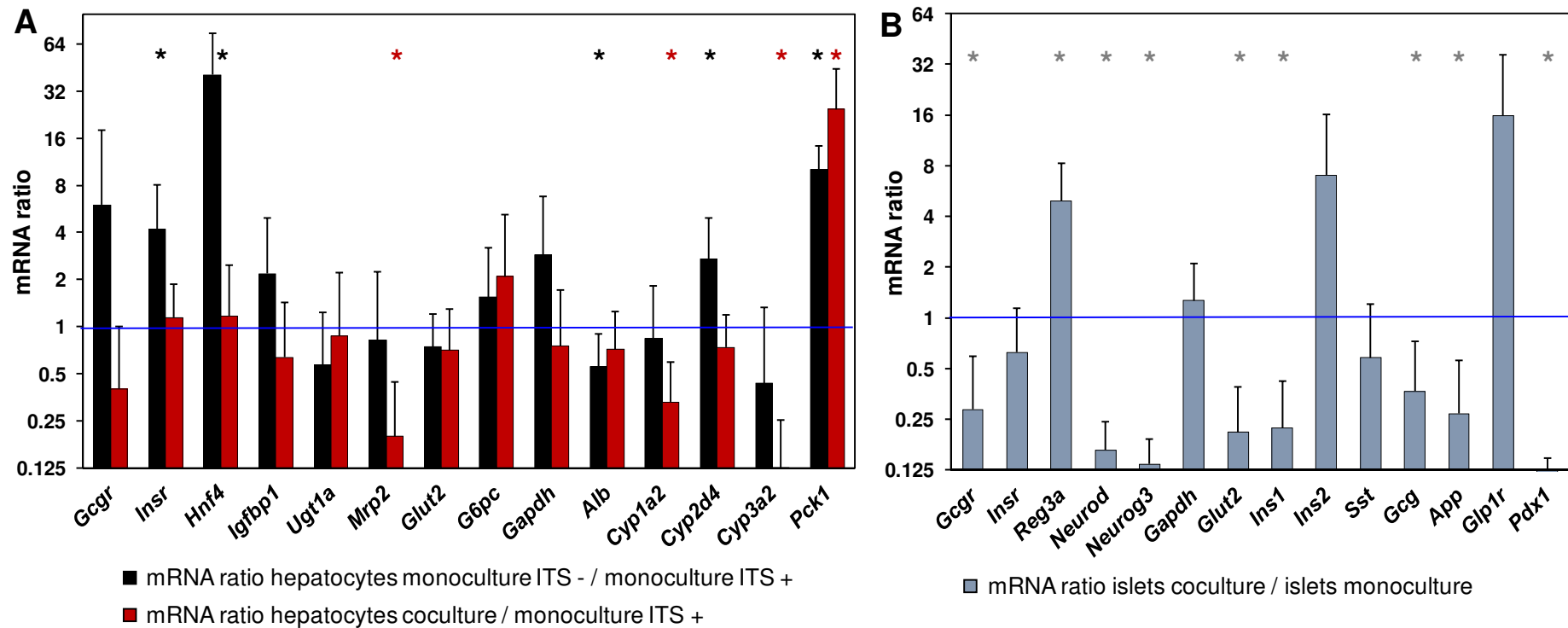


Fig.5. (A) Ratio of mRNA levels of selected hepatic genes after 7 days of culture. Black bars: hepatocytes monoculture without insulin (ITS -) versus hepatocytes monoculture with insulin (ITS +), and red bars: hepatocytes in coculture with islets versus hepatocytes monoculture with insulin (ITS +). * $P < 0.05$, mRNA level significantly different when compared to monoculture (ITS +); **(B)** Ratio of mRNA levels of selected pancreatic islets genes after 5 days of culture (islets coculture versus islets monoculture). * $P < 0.05$, mRNA level significantly different between islets monoculture and coculture.

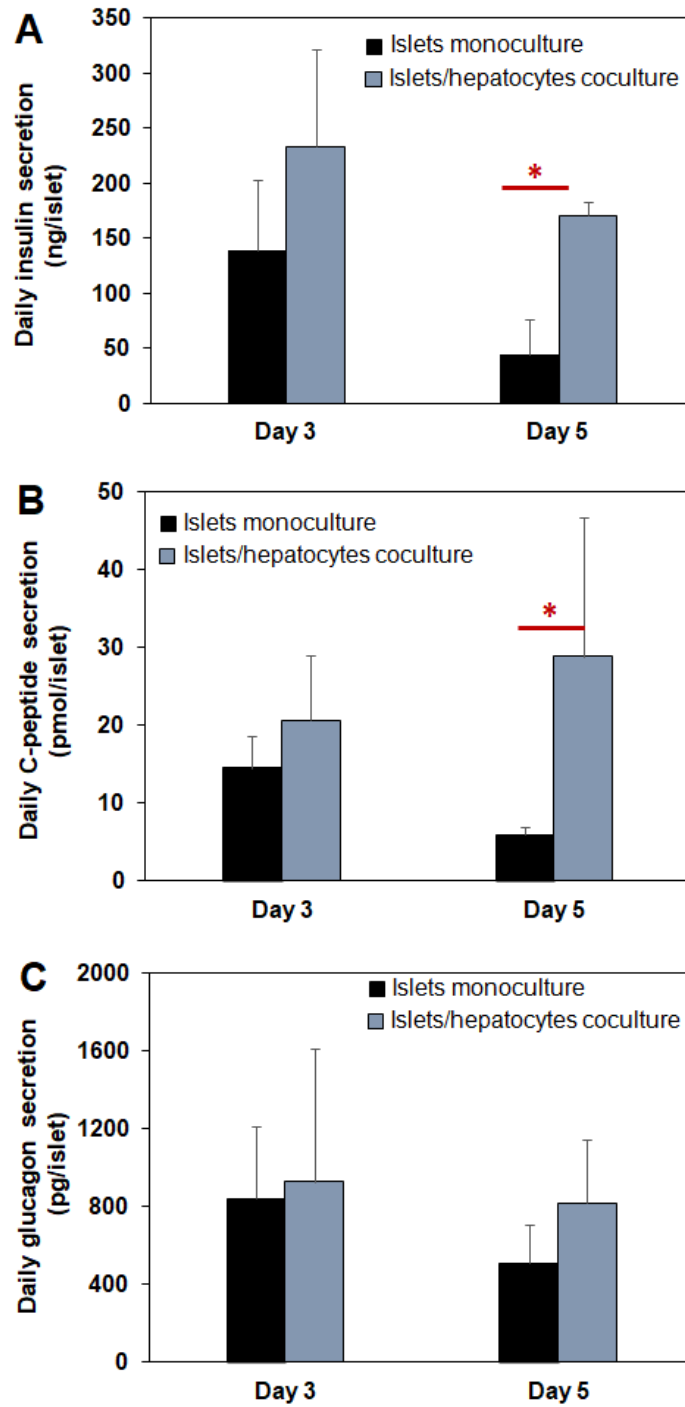


Fig.6. (A) Insulin, **(B)** C-peptide and **(C)** glucagon, daily secretion after 3 and 5 days of islets culture in monoculture and coculture with hepatocytes ($*P < 0.05$).

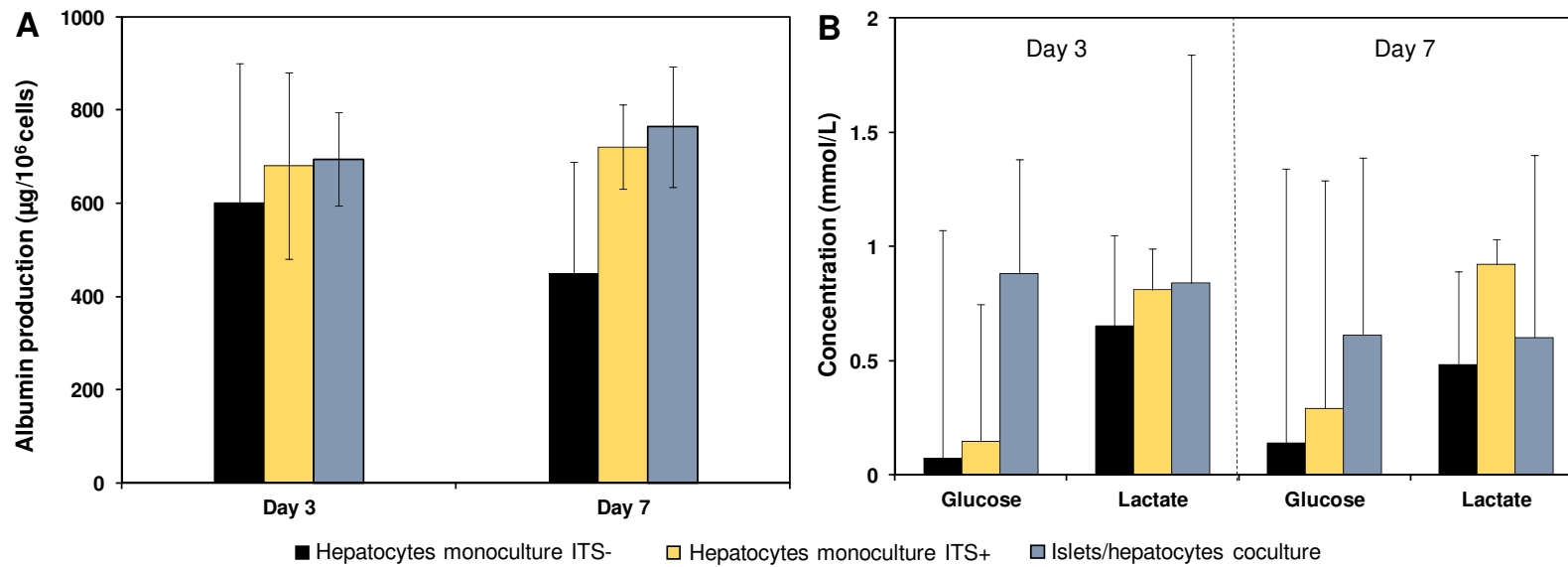


Fig.7. (A) Albumin production in hepatocytes monoculture without insulin (ITS -), monoculture with insulin (ITS +) and coculture with islets after 3 and 7 days; **(B)** glucose consumption and lactate production in hepatocytes monoculture without insulin (ITS -), monoculture with insulin (ITS +) and coculture with islets after 3 and 7 days.