Correlation of monoclonal and polyclonal somatostatin receptor 5 antibodies in pancreatic neuroendocrine tumors.

To evaluate the frequency of somatostatin-receptor 5 (SSTR 5) in pancreatic neuroendocrine tumors by using monoclonal and polyclonal antibodies, we analyzed 66 proven pancreatic neuroendocrine tumors immunohistochemically with monoclonal (clone UMB-4) and polyclonal SSTR 5-antibodies. Immunoreactive score (IRS) and DAKO-score Her2/neu were evaluated. Immunohistochemistry analysis demonstrated for the IRS a significant higher staining of all specimen using the monoclonal antibodies (IRS SSTR5 poly vs IRS SSTR 5 mono: 20.0% vs 30.3% p< 0.001) by a correlation of 0.21; p = 0.04. For the HER2 score there was also a significant higher staining in the monoclonal group (Her2 SSTR 5 poly vs Her2 SSTR 5 mono: 21.5% vs 28.8% p< 0.001) by a correlation of 0.20; p = 0.08. Both antibodies are useful in staining of SSTR, although UMB-4 demonstrated a 10% higher SSTR 5 staining. Due to the previous underestimated expression rate of SSTR 5, current standards in diagnostics and therapy should be reconsidered. The increasing usage of long-acting pansomatostatin receptor analogues will rise the adverse effects connected to SSTR5 binding.