We show that high Ma2 autoantibody titers in the blood of small intestine neuroendocrine tumor (SI-NET) patients is a sensitive and specific biomarker, superior to chromogranin A (CgA) for the risk of recurrence after radical operation of these tumors.

**Background**

Small intestine neuroendocrine tumors (SI-NETs) belong to a rare group of cancer. Most patients have developed metastatic disease at the time of diagnosis, for which there is currently no cure. The delay in diagnosis is a major issue in the clinical management of the patients and new markers are urgently needed. We have previously identified paraneoplastic antigen Ma2 (PNMA2) as a novel SI-NET tissue biomarker. Ma2 autoantibodies are often present in sera from cancer patients.

**Methods**

A novel indirect enzyme-linked immunosorbent assay (ELISA) was set up to detect Ma2 autoantibodies in blood samples of patients with SI-NET at different stages of disease. In total, 124 blood samples of SI-NET patients were included in the study. Ma2 autoantibodies in the blood from SI-NET patients were verified by western blot and sequential immunoprecipitation.