Supplementary Methods

Immunohistochemistry

Tissue was deparaffinized by using xylene two times (10 min), 100% ethanol (5 min) two times, 70% ethanol (5 min) and water (5 min). Peroxidase activity was blocked by using the Dual Endogenous Enzyme Block (Dako). Epitope retrieval was performed by heating the tissue sections immersed in Target Retrieval Solution (S1699, Dako) for one hour in a steamer. After cooling down, tissue was incubated with the primary antibodies (Table S1). The incubation time was 30 min at room temperature, except for CD31. CD31 primary antibody was incubated at 4°C overnight. For the subsequent steps, the EnVision+ Dual Link (HRP. Rabbit/Mouse, K4063, Dako) was used according to manufacturer´s instructions. Of note, the secondary antibody used for the immunostaining against CD98hc was the polyclonal rabbit anti-goat Immunoglobulins/HRP (P0449, Dako). Chromogenic detection for αV-integrin and NRP1 was performed using the SignalStain® DAB Substrate Kit (#8059, Cell Signaling).

Table S1: Primary antibodies used in the study.

Target	Primary antibody (clone)	Catalogue number	Company	Dilution	Tissue used as positive control
αV- integrin	Rabbit monoclonal (EPR16800)	ab179475	Abcam	1:200	Kidney
CD31	Mouse monoclonal (JC70A)	M0823	DAKO	1:20	Tonsil
NRP1	Rabbit monoclonal (EPR3113)	ab81321	Abcam	1:200	Lung cancer
uPAR	Rabbit polyclonal	TA323492	Origene	1:80	Breast cancer
PTEN	Rabbit monoclonal (138G6)	#9559	Cell Signaling	1:100	Breast cancer
CD98hc	Goat polyclonal (C-20)	sc-7095	Santa Cruz Biotechnology	1:200	Pancreatic cancer