## $\alpha$ 11 $\beta$ 1 integrin is induced in a subset of cancerassociated fibroblasts in desmoplastic tumor stroma and mediates *in vitro* cell migration

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**Supplementary Figures S1-S3** 



**Figure S1**. Determination of the integrin  $\alpha$ 11 203E1 and 203E3 mAb affinity. The experiment was done in nanoTools using Luminex beads (Biorad) conjugated with either integrin  $\alpha$ 11 $\beta$ 1 or  $\alpha$ 2 $\beta$ 1 protein (target protein, both are from R&D Systems). Binding affinity of the mAb 203E1 and 203E3 to the target protein was indicated by the mean fluorescent intensity (MFI) at different mAb concentrations.



**Figure S2**. Immunostaining and H&E staining of sections from three different HNSCC patients. Immuno and H&E stainings were performed in available sections from 3 independent patients with an oral cancer (patient OC 29A, OC 41B and OC 54B). A representative staining result from OC 29A was shown in Figure 5 indicated as HNSCC, together with staining result from a PDAC patient. Scale bar: 100 µm in IF pictures and 200 µm in H&E pictures.



**Figure S3**. Full-size Western blots of Figure 6a and protein quantifications for each blot. Protein extracts from indicated cells were transferred to a PVDF membrane, and the membrane was blotted sequentially with antibodies to integrin  $\alpha 11$  (a), integrin  $\alpha 2$  (b) and integrin  $\alpha 1$  (c). The protein-antibody complexes were stripped off before each blotting. Molecular weight marker (BioRad) was used and sizes of the bands were indicated. The relative expression levels of the integrin  $\alpha$  chains were normalized to  $\beta$ -actin on each membrane except for integrin  $\alpha 1$  blot was only incubated with  $\alpha 1$  but not  $\beta$ -actin antibody.