

**Supplementary Table 1**

Case	Age at Diagnosis	Stage	Grade and histology	PD-L1 expression	MMR status
1	39	IA	2 Endometrioid	Tumor: 1-5% Immune: 1-5%	PMS2 loss c.150delinsAG
2	64	IA	1 Endometrioid	Tumor: 1-5% Immune: 11-25%	MSH6 loss Germline negative
3	58	IA	1 Endometrioid	Tumor: 1-5% Immune: 6-10%	MSH2/MSH6 loss Germline negative
4	61	IIIC1	3 Dedifferentiated	Tumor: 6-10% Immune: 6-10%	MSH2/MSH6 loss Germline negative

**Supplementary Figure 1.** This MSH2/MSH6-deficient, de-differentiated endometrioid carcinoma showed nuclear  $\beta$ -catenin in a subset of cells (200x, A: Hematoxylin & Eosin; B:  $\beta$ -catenin). PD-L1 was predominantly negative in the tumor but was strongly positive in tumor-associated macrophages (200x, C: PD-L1).