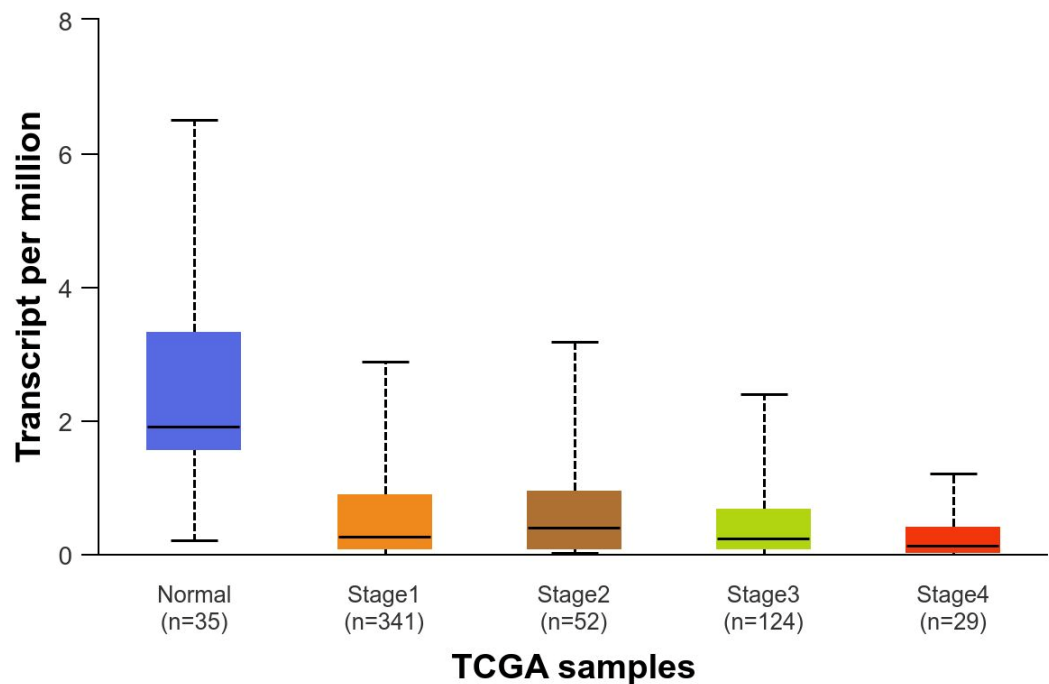
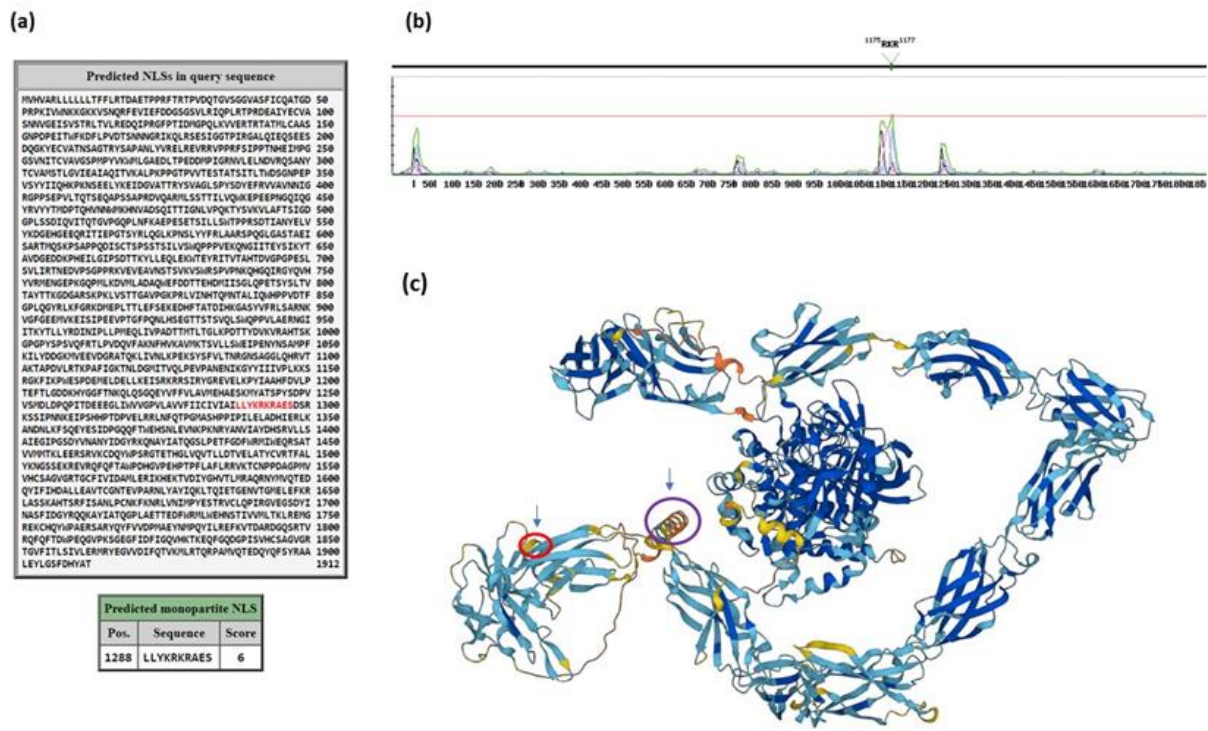


Supplementary Figure S1. Violin plots of relative *Protein Tyrosine Phosphatase Receptor Type D* (*PTPRD*) expression within normal and cancerous brain cell clusters. **(a)** All cell types obtained from normal brain cell clusters exhibited *PTPRD* relative gene expression of nearly 8 log2TPM(10+1). **(b)** Cell clusters obtained from astrocytoma samples revealed lower expression of *PTPRD* in comparison to normal brain cell clusters. The relative expression within malignant cells and oligodendrocytes was 5.9 log2TPM(10+1) and 5.2 log2TPM(10+1), respectively, followed by microglia and T-cells where the levels of *PTPRD* were extremely low or absent. **(c)** IDH-wild type glioblastoma multi-forme (GBM) cell cluster-tSNE violin plots showed similar *PTPRD* expression patterns to astrocytoma cell clusters.

Expression of PTPRD in UCEC based on individual cancer stages



Supplementary Figure S2. Expression of PTPRD in uterine corpus endometrial carcinoma (UCEC), based on differen cancer stages.



Supplementary Figure S3. Nuclear localisation signal (NLS) prediction (a and b). AlphaFold-generated structure prediction of PTPRD (c). Red circle/arrow indicates the RKR NLS, and purple circle/arrow indicates the LLYKRKRAES NLS.

Supplementary Table S1. Information of the tissue microarray. F: female, T: primary tumour site and size, N: regional lymph node involvement; M: presence or otherwise of distant metastatic spread.

Pos.	No.	Age	Sex	Organ/Anatomic Site	Pathology diagnosis	TNM	Grade	Stage	Type
A1	1	40	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
A2	2	62	F	Uterus	Endometrioid adenocarcinoma	T1N0M0	1	I	malignant
A3	3	63	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
A4	4	58	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	1	IC	malignant
A5	5	40	F	Uterus	Endometrioid adenocarcinoma (sparse)	T1bN0M0	1	IB	malignant
A6	6	51	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
A7	7	57	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
A8	8	52	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	1	IC	malignant
A9	9	45	F	Uterus	Endometrioid adenocarcinoma	T1aN0M0	1	IA	malignant
A10	10	51	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
B1	11	68	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	1	IC	malignant
B2	12	62	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
B3	13	59	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
B4	14	51	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
B5	15	62	F	Uterus	Endometrioid adenocarcinoma	T1cN1M0	1	IIIC	malignant
B6	16	56	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
B7	17	62	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
B8	18	50	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant

B9	19	60	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	1	IC	malignant
B10	20	51	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1--2	IB	malignant
C1	21	60	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1--2	IB	malignant
C2	22	55	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	1--2	IC	malignant
C3	23	61	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	1	IC	malignant
C4	24	68	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	1	IC	malignant
C5	25	60	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
C6	26	50	F	Uterus	Endometrioid adenocarcinoma (smooth muscle tissue)	T1bN0M0	-	IB	malignant
C7	27	52	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	2	IB	malignant
C8	28	67	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	1	IC	malignant
C9	29	72	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
C10	30	55	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	1	IB	malignant
D1	31	57	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	2	IB	malignant
D2	32	58	F	Uterus	Endometrioid adenocarcinoma	T1bN0M0	3	IB	malignant
D3	33	52	F	Uterus	Endometrioid adenocarcinoma (smooth muscle tissue)	T1bN0M0	-	IB	malignant
D4	34	53	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	3	IC	malignant
D5	35	53	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	3	IC	malignant
D6	36	47	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	3	IC	malignant
D7	37	62	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	3	IC	malignant

D8	38	65	F	Uterus	Endometrioid adenocarcinoma with squamous metaplasia	T1bN0M0	3	IB	malignant
D9	39	54	F	Uterus	Endometrioid adenocarcinoma	T1cN0M0	3	IC	malignant
D10	40	56	F	Uterus	Endometrioid adenocarcinoma (chronic inflammation of smooth muscle)	T2aN0M0	-	IIA	malignant
E1	41	48	F	Uterus	Endometrioid adenocarcinoma	T3N0M0	3	III	malignant
E2	42	49	M	Uterus	Serous adenocarcinoma	T1bN0M0	2–3	IB	malignant
E3	43	60	F	Uterus	Serous adenocarcinoma	T3aN0M0	1	IIIA	malignant
E4	44	72	F	Uterus	Clear cell adenocarcinoma	T1cN0M0	2	IC	malignant
E5	45	50	F	Uterus	Clear cell adenocarcinoma	T2bN0M0	2	IIB	malignant
E6	46	21	F	Uterus	Normal endometrium tissue	-	-	-	normal
E7	47	41	F	Uterus	Normal endometrium tissue	-	-	-	normal
E8	48	18	F	Uterus	Normal endometrium tissue	-	-	-	normal
E9	49	21	F	Uterus	Normal endometrium tissue	-	-	-	normal
E10	50	21	F	Uterus	Normal endometrium tissue (smooth muscle and blood vessel)	-	-	-	normal
	0	42	M	Adrenal gland	Pheochromocytoma (tissue marker)		-		Malignant