Supplementary Table 1. Antibodies used for immunohistochemistry.

Antibody	Vendor	Catalog #	Clone	Dilution
CD38	Leica biosystems	NCL-L-CD38-290	SPC32	1:100
CSF1R	Abcam	ab183316	SP211	1:250
CD3	Agilent	A045201-2	Polyclonal	1:100
CD8	Thermo	MS-457S	C8/144B	1:25
CD20	Agilent	M0755501-2	L26	1:1400
CD68	Agilent	M087601-2	PG-M1	1:450
CD45RO	Leica biosystems	PA0146	UCHL1	1:75
FOXP3	BioLegend	320102	206D	1:50
PD-1	Abcam	ab137132	EPR4877(2)	1:250
PD-L1	CST	13684	E1L3N	1:100

Marker	Clone	Vendor	Catalog #
CD45	2D1	Biolegend	368528
CD3	UCHT1	eBioscience	58-0038-42
CD4	SK3	BDBiosciences	563875
CD8	RPA-T8	BDBiosciences	564526
CD19	HIB19	Biolegend	302252
CD56	B159	BDBiosciences	564488
CD11b	ICRF44	BDBiosciences	557754
CD14	МфР9	BDBiosciences	563372

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HLA-DR	L243	BDBiosciences	339194
CD25	2A3	BDBiosciences	564033
CD127	HIL-7R-M21	BDBiosciences	562662
Foxp3	236A/E7	eBiosciences	25-4777-42
CD38	Humab-003	Janssen	N/A
CD115 (CSF-1R)	9-4D2-1E4	Biolegend	347304

Supplementary Table 3. All treatment-emergent events regardless of attribution.

	Arm A: Daratumumab		Arm B: Edicotinib		Total	
	(N=	15)	(N=10)		(N=25)	
	All	Grade 3+	All	Grade 3+	All	Grade 3+
Adverse Event	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
Any Event	15(100%)	9(60%)	10(100%)	3(30%)	25(100%)	12(48%)
Hyperglycemia	11(73%)	2(13%)	5(50%)	0(0%)	16(64%)	2(8%)
Infusion reaction	5(33%)	2(13%)	0(0%)	0(0%)	5(20%)	2(8%)
Lipase increased	1(7%)	1(7%)	1(10%)	1(10%)	2(8%)	2(8%)
Anemia	10(67%)	1(7%)	5(50%)	0(0%)	15(60%)	1(4%)
Hyperkalemia	3(20%)	1(7%)	1(10%)	0(0%)	4(16%)	1(4%)
Acute kidney injury	2(13%)	1(7%)	0(0%)	0(0%)	2(8%)	1(4%)
Death NOS	1(7%)	1(7%)	0(0%)	0(0%)	1(4%)	1(4%)
Lymphocele	0(0%)	0(0%)	1(10%)	1(10%)	1(4%)	1(4%)
Small intestinal obstruction	0(0%)	0(0%)	1(10%)	1(10%)	1(4%)	1(4%)
Urticaria	1(7%)	1(7%)	0(0%)	0(0%)	1(4%)	1(4%)
Vertigo	1(7%)	1(7%)	0(0%)	0(0%)	1(4%)	1(4%)
Fatigue/Malaise	9(60%)	0(0%)	3(30%)	0(0%)	12(48%)	0(0%)
Pain	7(47%)	0(0%)	4(40%)	0(0%)	11(44%)	0(0%)
Paresthesia	4(27%)	0(0%)	4(40%)	0(0%)	8(32%)	0(0%)
Creatinine increased	3(20%)	0(0%)	4(40%)	0(0%)	7(28%)	0(0%)
Erectile dysfunction	3(20%)	0(0%)	4(40%)	0(0%)	7(28%)	0(0%)
Rhinitis	6(40%)	0(0%)	0(0%)	0(0%)	6(24%)	0(0%)
ALT increased	3(20%)	0(0%)	2(20%)	0(0%)	5(20%)	0(0%)
Nocturia	4(27%)	0(0%)	1(10%)	0(0%)	5(20%)	0(0%)
Sore throat	5(33%)	0(0%)	0(0%)	0(0%)	5(20%)	0(0%)
White blood cell decreased	2(13%)	0(0%)	3(30%)	0(0%)	5(20%)	0(0%)
AST increased	0(0%)	0(0%)	4(40%)	0(0%)	4(16%)	0(0%)
Abdominal pain	3(20%)	0(0%)	1(10%)	0(0%)	4(16%)	0(0%)
Bloating/abdominal distension	3(20%)	0(0%)	1(10%)	0(0%)	4(16%)	0(0%)
Constipation	3(20%)	0(0%)	1(10%)	0(0%)	4(16%)	0(0%)
Dyspepsia/acid reflux	4(27%)	0(0%)	0(0%)	0(0%)	4(16%)	0(0%)
Headache	3(20%)	0(0%)	1(10%)	0(0%)	4(16%)	0(0%)
Lymphocyte count decreased	2(13%)	0(0%)	2(20%)	0(0%)	4(16%)	0(0%)
Urinary incontinence	3(20%)	0(0%)	1(10%)	0(0%)	4(16%)	0(0%)
Anorexia	2(13%)	0(0%)	1(10%)	0(0%)	3(12%)	0(0%)
Chloride increased	3(20%)	0(0%)	0(0%)	0(0%)	3(12%)	0(0%)
Concentration impairment	2(13%)	0(0%)	1(10%)	0(0%)	3(12%)	0(0%)
Cough	2(13%)	0(0%)	1(10%)	0(0%)	3(12%)	0(0%)
Diarrhea	3(20%)	0(0%)	0(0%)	0(0%)	3(12%)	0(0%)
Fever	2(13%)	0(0%)	1(10%)	0(0%)	3(12%)	0(0%)
Hypertension	1(7%)	0(0%)	2(20%)	0(0%)	3(12%)	0(0%)
Hyponatremia	3(20%)	0(0%)	0(0%)	0(0%)	3(12%)	0(0%)
Insomnia	3(20%)	0(0%)	0(0%)	0(0%)	3(12%)	0(0%)
Myalgia	3(20%)	0(0%)	0(0%)	0(0%)	3(12%)	0(0%)
Nausea	3(20%)	0(0%)	0(0%)	0(0%)	3(12%)	0(0%)
Neutrophil count decreased	2(13%)	0(0%)	1(10%)	0(0%)	3(12%)	0(0%)
Rash	2(13%)	0(0%)	1(10%)	0(0%)	3(12%)	0(0%)
Sinus bradycardia	3(20%)	0(0%)	0(0%)	0(0%)	3(12%)	0(0%)
Urinary frequency	2(13%)	0(0%)	1(10%)	0(0%)	3(12%)	0(0%)
Arthralgia	1(7%)	0(0%)	1(10%)	0(0%)	2(8%)	0(0%)
Atelectasis	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Bladder spasm	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Blurred vision	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
CO2 decreased	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
CO2 uccreased	2(1370)	0(070)	0(070)	0(070)	2(070)	0(070)

	Arm A: Daratumumab		Arm B: Edicotinib		Total	
	(N=15)		(N=10)		(N=25)	
	All	Grade 3+	All	Grade 3+	All	Grade 3+
Adverse Event	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)
Chest pain	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Chloride decreased	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Cold intolerance	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Dyspnea	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Ear pain	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Edema	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Generalized muscle weakness	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Hypernatremia	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Hypokalemia	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Investigations - Other, specify-	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
LDL increase	2(1370)	0(070)	0(070)	0(070)	2(070)	0(070)
Neutrophils increased	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Platelet count decreased	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Sinus tachycardia	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Sinusitis/Upper Respiratory	1(7%)	0(0%)	1(10%)	0(0%)	2(8%)	0(0%)
Infection	1(770)	0(070)	1(1070)	0(070)	2(070)	0(070)
Tremor	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
	` /	` /	` /			()
Urinary urgency	2(13%)	0(0%)	0(0%)	0(0%)	2(8%)	0(0%)
Wheezing	1(7%)	0(0%)	1(10%)	0(0%)	2(8%)	0(0%)
Abscess	0(0%)	0(0%)	1(10%)	0(0%)	1(4%)	0(0%)
Agitation	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Albumin increased	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Alk phos increased	0(0%)	0(0%)	1(10%)	0(0%)	1(4%)	0(0%)
Alopecia	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Anastomotic leak	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Anxiety	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Ascites	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Aspiration	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
BUN increased	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
CO2 increased	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Chest Congestion	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Chills	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Cholelithiasis	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Cholesterol increased	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Conduction abnormality*	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Confusion	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Coronary atherosclerosis	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Cortisol decreased	0(0%)	0(0%)	1(10%)	0(0%)	1(4%)	0(0%)
Dehydration	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Diaphoresis	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Dizziness	0(0%)	0(0%)	1(10%)	0(0%)	1(4%)	0(0%)
Dry mouth	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Dysphagia	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Dysuria	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Ejaculation disorder	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Enteritis	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Floaters	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Flu like symptoms	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Hematoma	0(0%)	0(0%)	1(10%)	0(0%)	1(4%)	0(0%)
Hematuria	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Hoarseness	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
Hypertriglyceridemia	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)
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	Arm A: Daratumumab		Arm B: I	Arm B: Edicotinib		Total	
	(N=	15)	(N=	=10)	(N=	=25)	
	All	Grade 3+	All	Grade 3+	All	Grade 3+	
Adverse Event	N(%)	N(%)	N(%)	N(%)	N(%)	N(%)	
Hypoalbuminemia	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Hypocalcemia	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Hypoglycemia	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Hypomagnesemia	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Hypophosphatemia	0(0%)	0(0%)	1(10%)	0(0%)	1(4%)	0(0%)	
LDH increased	0(0%)	0(0%)	1(10%)	0(0%)	1(4%)	0(0%)	
LDL increased	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Laceration	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Monocytes increased	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Mouth sores	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Other infection	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Overweight	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
PT decreased	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Peripheral sensory neuropathy	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Platelet count increased	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Pressured speech	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Pruritus	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Reversible posterior	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
leukoencephalopathy syndrome	;	. ,		. ,			
Shingles	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Sinus pain	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
T3 decreased	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
TSH increased	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Twisted ankle	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Urinary retention	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Urinary tract infection	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Urinary urgency	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
White blood cells increased	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
Yellow skin tone	1(7%)	0(0%)	0(0%)	0(0%)	1(4%)	0(0%)	
aPTT prolonged	0(0%)	0(0%)	1(10%)	0(0%)	1(4%)	0(0%)	

^{*} One patient had a cardiac conduction abnormality with measures 2 weeks apart. The first showed a first degree AV block with moderate intraventricular conduction delay while the second showed first degree AV block 2 weeks later

Supplementary Table 4. Pathologic details of daratumumab-treated samples

PA13-0291 Acc #	Gleason Score at Biopsy	Gleason Score at RP	Pathologic T Stage at RP	Pathologic N Stage at RP	Comment
2866	9 (5+4)	9 (5+4)	pT3b	N1	
3228	9 (4+5)	9 (4+5)	pT3b	N1	
3229	9 (4+5)	9 (4+5)	pT3b	N1	
2953	9 (4+5)	9 (4+5)	pT3b	N0	
2917	9 (4+5)	9 (4+5)	рТ3а	N0	
3253	9 (4+5)	7 (4+3)	pT2	N0	
3821	8 (4+4)	7 (3+4)	рТ3а	N0	Tertiary pattern 5
3251	8 (4+4)	9 (4+5)	pT3b	N1	
3407	8 (4+4)	9 (4+5)	pT3b	N1	
2875	8 (4+4)	9 (4+5)	рТ3а	N1	
3824	8 (4+4)	9 (4+5)	pT3b	N0	
2929	8 (4+4)	9 (4+5)	pT2	N0	
3778	8 (4+4)	8 (4+4)	рТ3а	N0	
3760	8 (4+4)	7 (4+3)	pT2	N0	
3929	8 (4+4)	7 (4+3)	pT2	N0	

Supplementary Table 5. Pathologic details of edicotinib-treated samples

PA13-0291 Acc #	Gleason Score at Biopsy	Gleason Score at RP	Pathologic T Stage at RP	Pathologic N Stage at RP	Comment
3612	9 (4+5)	9 (4+5)	pT3b	N1	
3684	9 (4+5)	9 (4+5)	pT3b	N0	
3979	9 (4+5)	7 (4+3)	pT3b	N1	Tertiary pattern 5
4040	9 (4+5)	9 (4+5)	pT2	N0	
4071	9 (4+5)	9 (4+5)	рТ3а	N1	
4070	9 (4+5)	9 (4+5)	pT2	N1	
4097	9 (4+5)	8 (3+5)	рТ3а	N0	
3538	8 (4+4)	8 (4+4)	pT2	N0	
3621	8 (4+4)	9 (4+5)	рТ3а	N0	
3656	8 (4+4)	7 (3+4)	pT2	N0	

Supplementary Table 6. Pathologic details of control samples.

PA13-0291 Acc #	Gleason Score at Biopsy	Gleason Score at RP	Pathologic T Stage at RP	Pathologic N Stage at RP	Comment
3498	9 (4+5)	9 (4+5)	рТ3а	N0	
3514	8 (4+4)	7 (4+3)	pT2	N0	Tertiary pattern 5
3526	8 (4+4)	9 (4+5)	pT3b	N0	
3528	9 (4+5)	9 (4+5)	рТ3а	N1	
3681	9 (4+5)	9 (5+4)	pT2	N0	
3711	8 (4+4)	7 (4+3)	pT3b	N0	
3720	8 (4+4)	7 (4+3)	рТ3а	N0	Tertiary pattern 5
3789	8 (4+4)	7 (3+4)	рТ3а	N0	
3816	8 (4+4)	7 (4+3)	pT3b	N0	Tertiary pattern 5
3818	8 (4+4)	7 (4+3)	pT3a	N0	Tertiary pattern 5