

Supplementary Table 1. CT-X expression frequency and clinical characteristics

		All Patients	CT-X [-]	CT-X[+]	CT-X [low]	CT-X[high]	NY-ESO-1[+]	LAGE-1[+]	MAGE-A1[+]	MAGE-A3[+]
Age	<60	129	33 (36%)	96 (74%)	68 (53%)	61 (47%)	31/128 (24%)	33/113 (29%)	60/115 (52%)	76/129 (59%)
	>=60	318	91 (29%)	227 (71%)	165 (52%)	153 (48%)	86/230 (27%)	91/268 (34%)	132/294 (45%)	168/315 (53%)
	p			0.6		0.9	0.6	0.4	0.2	0.3
Sex	M	208	47 (23%)	161 (77%)	91 (44%)	142 (56%)	64/205 (31%)	62/180 (34%)	97/189 (51%)	128/206 (62%)
	F	239	77 (32%)	162 (68%)	142 (59%)	97 (41%)	53/239 (22%)	62/201 (31%)	95/125 (43%)	116/238 (49%)
	p			0.03		0.001	0.04	0.5	0.1	0.006
Smoke	No	42	15 (36%)	27 (64%)	11 (26%)	31 (74%)	9/42 (21%)	9/36 (25%)	13/40 (33%)	16/41 (39%)
	Yes	342	90 (26%)	252 (74%)	173 (51%)	169 (49%)	89/339 (26%)	101/303 (33%)	155/309 (50%)	195/340 (57%)
	p			0.2		0.003	0.6	0.4	0.04	0.03
Tumor size	3cm =>	247	76 (31%)	171 (69%)	146 (65%)	80 (35%)	62/246 (25%)	59/203 (29%)	93/227 (41%)	126/245 (51%)
	3cm <	189	43 (23%)	146 (77%)	101 (48%)	109 (52%)	54/187 (29%)	65/171 (38%)	97/174 (56%)	114/188 (61%)
	p			0.06		0.0006	0.4	0.08	0.004	0.06
T stage	T1	169	57 (34%)	112 (66%)	102 (60%)	67 (40%)	37/168 (22%)	38/138 (28%)	60/154 (39%)	81/168 (48%)
	T2	216	50 (23%)	166 (77%)	99 (46%)	117 (54%)	65/215 (30%)	70/192 (37%)	107/200 (54%)	129/215 (60%)
	T3	17	1 (6%)	16 (94%)	4 (24%)	13 (76%)	7/16 (44%)	9/15 (60%)	10/14 (71%)	13/17 (77%)
	T4	34	8 (24%)	26 (76%)	19 (56%)	15 (44%)	8/34 (24%)	7/21 (25%)	14/32 (44%)	19/34 (56%)
p			0.04		0.004	0.2	0.05	0.03	0.08	
N stage	N0	308	35 (28%)	92 (72%)	59 (26%)	167 (74%)	83/305 (27%)	87/265 (33%)	135/279 (48%)	168/307 (55%)
	N1+2	127	83 (27%)	225 (73%)	68 (33%)	141 (67%)	32/127 (25%)	35/108 (32%)	55/120 (46%)	71/126 (56%)
	p			0.9		0.2	0.7	1	0.7	0.8
M stage	M0	419	115 (27%)	304 (73%)	215 (51%)	204 (49%)	112/416 (27%)	120/359 (33%)	201/384 (52%)	232/417 (56%)
	M1	19	3 (16%)	16 (84%)	11 (58%)	8 (42%)	5/19 (26%)	4/16 (25%)	9/18 (50%)	10/19 (53%)
	p			0.4		0.6	1	0.6	1	0.8
Pathologic stage	I	273	76 (28%)	197 (72%)	147 (54%)	126 (46%)	75/271 (28%)	77/234 (33%)	119/248 (48%)	149/272 (55%)
	II	73	16 (22%)	57 (78%)	30 (41%)	43 (59%)	22/72 (31%)	25/61 (41%)	35/66 (53%)	45/72 (63%)
	III	72	22 (31%)	50 (69%)	37 (51%)	35 (49%)	15/72 (21%)	18/63 (29%)	29/69 (42%)	38/72 (53%)
	IV	19	3 (16%)	16 (84%)	11 (58%)	8 (42%)	5/19 (26%)	4/14 (25%)	9/18 (50%)	10/19 (53%)
	p			0.6		0.7	0.4	0.5	0.7	0.9
Pleural invasion	No	272	83 (31%)	189 (69%)	155 (57%)	117 (43%)	66/271 (24%)	65/231 (28%)	104/249 (42%)	138/271 (51%)
	Yes	126	27 (21%)	99 (79%)	54 (43%)	72 (57%)	40/124 (32%)	49/110 (45%)	64/116 (55%)	80/125 (64%)
	p			0.07		0.01	0.1	0.003	0.02	0.02
Ground glass opacity	No	187	53 (28%)	134 (72%)	95 (51%)	92 (49%)	52/185 (28%)	105/161 (35%)	82/171 (48%)	102/186 (55%)
	Yes	45	16 (36%)	29 (64%)	32 (71%)	13 (29%)	6/45 (13%)	9/39 (23%)	15/41 (37%)	23/45 (51%)
	p			0.4		0.02	0.05	0.2	0.2	0.7

Supplementary Table 1 (continued)

		All Patients	MAGE-A3[+]	MAGE-A4[+]	MAGE-A10[+]	CT-7[+]	SSX2[+]	SSX4[+]	NY-ESO-1[high]	LAGE-1[high]
Age	<60	129	76/129 (59%)	30/76 (40%)	14/60 (23%)	20/88 (23%)	8/60 (13%)	9/54 (17%)	20/128 (16%)	20/113 (18%)
	>=60	318	168/315 (53%)	62/193 (32%)	44/153 (29%)	33/199 (17%)	13/158 (8%)	16/120 (12%)	43/316 (14%)	60/268 (22%)
	p		0.3	0.3	0.5	0.3	0.3	0.4	0.7	0.3
Sex	M	208	128/206 (62%)	51/113 (45%)	30/86 (35%)	26/134 (19%)	11/97 (11%)	18/84 (22%)	40/205 (20%)	44/180 (24%)
	F	239	116/238 (49%)	41/156 (27%)	28/127 (22%)	27/153 (18%)	10/121 (8%)	7/106 (6%)	23/239 (10%)	36/201 (18%)
	p		0.006	0.002	0.05	0.8	0.5	0.004	0.004	0.1
Smoke	No	42	16/41 (39%)	3/29 (10%)	4/25 (16%)	5/30 (17%)	4/18 (22%)	1/14 (7%)	5/42 (12%)	3/36 (8%)
	Yes	342	195/340 (57%)	75/215 (35%)	49/175 (28%)	35/210 (17%)	16/174 (9%)	23/152 (15%)	48/339 (14%)	71/303 (23%)
	p		0.03	0.01	0.2	1	0.1	0.4	0.8	0.05
Tumor size	3cm =>	247	126/245 (51%)	43/155 (28%)	28/119 (24%)	30/169 (18%)	10/115 (8%)	13/112 (12%)	32/214 (13%)	33/203 (16%)
	3cm <	189	114/188 (61%)	48/110 (44%)	30/94 (32%)	22/115 (19%)	9/84 (11%)	12/69 (17%)	30/187 (16%)	47/171 (28%)
	p		0.06	0.009	0.2	0.8	0.6	0.3	0.4	0.01
T stage	T1	169	81/168 (48%)	24/102 (24%)	15/79 (19%)	22/117 (19%)	5/81 (6%)	8/74 (11%)	16/168 (10%)	17/138 (12%)
	T2	216	129/215 (60%)	52/124 (42%)	35/104 (34%)	23/132 (18%)	12/99 (12%)	14/86 (16%)	37/215 (17%)	50/192 (26%)
	T3	17	13/17 (77%)	8/12 (67%)	6/11 (55%)	3/5 (38%)	1/10 (10%)	2/8 (25%)	5/16 (31%)	9/15 (60%)
	T4	34	19/34 (56%)	7/24 (29%)	2/16 (13%)	5/25 (20%)	3/18 (17%)	1/13 (8%)	5/34 (15%)	4/28 (14%)
	p		0.08	0.004	0.02	0.6	0.6	0.7	0.07	<0.0001
N stage	N0	308	168/307 (55%)	62/189 (33%)	39/155 (25%)	35/201 (17%)	12/148 (8%)	17/133 (13%)	42/305 (14%)	54/265 (20%)
	N1+2	127	71/126 (56%)	28/74 (38%)	18/56 (32%)	17/80 (21%)	8/53 (13%)	8/48 (17%)	19/127 (15%)	24/108 (22%)
	p		0.8	0.5	0.4	0.5	0.3	0.5	0.8	0.7
M stage	M0	419	232/417 (56%)	87/251 (35%)	56/199 (28%)	51/272 (19%)	21/203 (10%)	24/152 (14%)	61/416 (15%)	78/359 (22%)
	M1	19	10/19 (53%)	4/14 (29%)	2/13 (15%)	2/11 (18%)	0/8 (0%)	1/7 (14%)	2/19 (11%)	2/16 (13%)
	p		0.8	0.8	0.5	1	1	1	1	0.5
Pathologic stage	I	273	149/272 (55%)	53/164 (32%)	35/137 (26%)	30/178 (17%)	12/129 (9%)	16/118 (14%)	37/271 (14%)	48/234 (21%)
	II	73	45/72 (63%)	18/38 (47%)	12/27 (44%)	13/46 (28%)	4/33 (12%)	5/28 (18%)	15/72 (21%)	17/61 (28%)
	III	72	38/72 (53%)	16/48 (33%)	9/34 (27%)	8/47 (17%)	5/40 (13%)	3/30 (10%)	9/72 (13%)	13/63 (21%)
	IV	19	10/19 (53%)	4/14 (29%)	2/13 (15%)	2/11 (18%)	0/8 (0%)	1/7 (14%)	2/19 (11%)	2/16 (13%)
	p		0.9	0.8	0.9	0.7	0.9	0.8	0.9	0.9
Pleural invasion	No	272	138/271 (51%)	115/160 (28%)	28/128 (22%)	33/182 (18%)	8/126 (6%)	13/110 (12%)	31/271 (12%)	35/231 (15%)
	Yes	126	80/125 (64%)	39/86 (45%)	27/76 (36%)	16/77 (21%)	11/69 (16%)	11/61 (18%)	27/124 (22%)	39/110 (36%)
	p		0.02	0.008	0.05	0.6	0.04	0.4	0.01	<0.0001
Ground glass opacity	No	187	102/186 (55%)	51/130 (39%)	34/116 (29%)	16/103 (16%)	16/114 (14%)	16/101 (16%)	30/185 (16%)	35/161 (22%)
	Yes	45	23/45 (51%)	4/30 (13%)	4/25 (16%)	5/29 (17%)	0/20 (0%)	0/21 (0%)	2/45 (4%)	6/39 (15%)
	p		0.7	0.01	0.2	1	0.1	0.07	0.05	0.5

Supplementary Table 1 (continued)

		All Patients	MAGE-A1[high]	MAGE-A3[high]	MAGE-A4[high]	MAGE-A10[high]	CT-7[high]	SSX2[high]	SSX4[high]
Age	<60	129	40/115 (35%)	50/129 (39%)	20/76 (26%)	11/60 (18%)	9/88 (10%)	3/60 (5%)	6/54 (11%)
	>=60	318	86/294 (29%)	126/315 (40%)	37/193 (19%)	31/153 (20%)	20/199 (10%)	8/158 (5%)	6/136 (5%)
	p		0.3	0.8	0.2	0.8	1	1	0.1
Sex	M	208	72/189 (38%)	99/206 (48%)	33/113 (29%)	23/86 (27%)	17/134 (13%)	7/90 (7%)	6/84 (7%)
	F	239	54/220 (25%)	77/238 (32%)	24/156 (15%)	19/127 (15%)	12/153 (8%)	4/121 (3%)	6/106 (6%)
	p		0.004	0.001	0.01	0.04	0.2	0.2	0.8
Smoke	No	42	5/40 (13%)	8/41 (20%)	1/29 (4%)	1/25 (4%)	1/30 (3%)	1/18 (5%)	1/14 (7%)
	Yes	342	106/309 (34%)	140/340 (41%)	49/215 (23%)	36/175 (21%)	21/210 (10%)	9/174 (5%)	11/152 (7%)
	p		0.006	0.007	0.01	0.05	0.3	1	1
Tumor size	3cm =>	247	55/227 (24%)	82/245 (34%)	21/134 (14%)	18/119 (15%)	18/169 (11%)	5/125 (4%)	3/112 (3%)
	3cm <	189	69/174 (40%)	91/188 (48%)	35/110 (32%)	24/94 (26%)	10/115 (9%)	5/84 (6%)	9/69 (13%)
	p		0.001	0.002	0.0004	0.08	0.7	0.5	0.01
T stage	T1	169	37/154 (24%)	60/168 (36%)	9/93 (9%)	9/79 (11%)	14/117 (12%)	2/81 (3%)	1/74 (1%)
	T2	216	74/200 (37%)	93/215 (43%)	39/124 (32%)	27/104 (26%)	11/132 (8%)	6/99 (6%)	8/86 (9%)
	T3	17	7/14 (50%)	11/17 (65%)	5/7 (42%)	5/11 (46%)	1/8 (13%)	1/10 (10%)	2/8 (25%)
	T4	34	8/32 (25%)	11/34 (33%)	3/24 (13%)	1/16 (6%)	3/25 (12%)	2/18 (11%)	1/13 (8%)
	p		0.03	0.07	0.0002	0.01	0.9	0.5	0.07
N stage	N0	308	82/279 (29%)	117/307 (38%)	35/189 (19%)	26/155 (17%)	19/201 (10%)	6/148 (4%)	5/133 (4%)
	N1+2	127	42/120 (35%)	56/126 (44%)	20/74 (27%)	16/56 (29%)	9/80 (11%)	4/61 (7%)	7/48 (15%)
	p		0.3	0.2	0.1	0.08	0.7	0.5	0.02
M stage	M0	419	119/265 (31%)	171/246 (41%)	54/251 (22%)	41/199 (21%)	28/272 (10%)	11/203 (5%)	11/176 (6%)
	M1	19	7/18 (39%)	4/19 (21%)	2/14 (14%)	1/13 (8%)	1/11 (9%)	0/8 (0%)	1/7 (14%)
	p		0.6	0.1	0.7	0.5	1	1	0.4
Pathologic stage	I	273	74/248 (30%)	106/272 (39%)	32/164 (20%)	24/137 (18%)	17/178 (10%)	6/129 (5%)	4/118 (3%)
	II	73	25/66 (38%)	38/72 (53%)	13/38 (34%)	1/27 (37%)	6/46 (13%)	3/33 (9%)	5/28 (18%)
	III	72	20/69 (29%)	27/72 (38%)	9/48 (19%)	7/34 (21%)	5/47 (11%)	2/40 (5%)	2/30 (7%)
	IV	19	7/18 (39%)	4/19 (21%)	2/14 (14%)	1/13 (8%)	1/11 (9%)	0/8 (0%)	1/7 (14%)
	p		0.6	0.5	1	1	0.8	1	0.1
Pleural invasion	No	272	65/249 (26%)	98/271 (36%)	22/160 (14%)	20/128 (16%)	20/182 (11%)	5/121 (4%)	3/110 (3%)
	Yes	126	45/116 (39%)	58/125 (46%)	28/86 (33%)	19/76 (25%)	7/77 (9%)	5/69 (7%)	9/61 (15%)
	p		0.02	0.06	<0.0001	0.1	0.8	0.3	0.001
Ground glass opacity	No	187	58/171 (34%)	75/186 (40%)	33/130 (25%)	25/116 (22%)	11/103 (11%)	9/114 (8%)	6/101 (6%)
	Yes	45	5/41 (12%)	10/45 (22%)	1/30 (3%)	2/25 (8%)	4/29 (14%)	0/20 (0%)	0/21 (0%)
	p		0.007	0.03	0.006	0.16	0.7	0.4	0.6