

Tables S1–S3 were compiled from work done at the de Duve institute and does not reflect the entirety of the peptides that can induce an adaptive immune response, but rather which MHCs are activated. For a more complete list of the peptides that induce an adaptive immune response, please visit the de Duve institutes website <https://caped.icp.ucl.ac.be/Peptide/list>.

Table S1. Differentiation tumor antigens.

Antigen	MHC-I	MHC-II
AIM-1	HLA-A2[1]	
CEA	HLA-A2[2, 3]	HLA-DR3[8]
	HLA-A3[4, 5]	HLA-DR4[9]
	HLA-A24[6]	HLA-DR7[8]
	HLA-B27[7]	HLA-DR9[10]
		HLA-DR11[11]
		HLA-DR13[11]
		HLA-DR14[11]
Gp-100	HLA-A2[12, 13]	HLA-DQ6[20]
	HLA-A3[14]	HLA-DR1[21]
	HLA-A11[14]	HLA-DR4[22]
	HLA-A24[15]	HLA-DR7[23]
	HLA-A68[16]	HLA-DR53[20]
	HLA-B7[17]	
	HLA-B35[18]	
	HLA-Cw8[19]	
Mammaglobin-A	HLA-A3[24]	
MART-1	HLA-A2[25, 26]	HLA-DR1[29]
	HLA-B35[18]	HLA-DR3[29]
	HLA-B45[27]	HLA-DR4[30]
	HLA-Cw7[28]	HLA-DR11[31]

Antigen	MHC-I	MHC-II
		HLA-DR52[31]
MC1R	HLA-A2[32]	
NY-BR-1	HLA-A2[33]	
OA1	HLA-A24[34]	
PAP	HLA-A2[35]	
PSA	HLA-A2[36]	HLA-DR4[37]
P. polypeptide	HLA-A2[38]	
RAB38 / NY-MEL-1	HLA-A2[39]	
SOX-10	HLA-A2[40]	
TRP-1(gp75)	HLA-A31[41]	HLA-DR4[42]
		HLA-DR15[43]
		HLA-DR17[44]
TRP-2	HLA-A2[45]	HLA-DR3[47]
	HLA-A31[46]	HLA-DR15[43]
	HLA-A33[46]	
	HLA-Cw8[19]	
Tyrosinase	HLA-A1[48]	HLA-DR4[54]
	HLA-A2[49, 50]	HLA-DR15[55]
	HLA-A24[51]	
	HLA-A26[17]	
	HLA-B35[52]	
	HLA-B38[17]	
	HLA-B44[53]	

Table S2. Overexpressed tumor antigens.

Antigen	MHC-I	MHC-II
Adipophilin	HLA-A2[56]	
AIM-2	HLA-A1[57]	
ALDH1A1	HLA-A2[58]	
AFP	HLA-A2[59]	HLA-DR13[60]
ART-4	HLA-A24[61]	
BCLX (L)	HLA-A2[62]	
BING-4	HLA-A2[63]	
CALCA	HLA-A2[64]	
CD45	HLA-A24[65]	
CD274	HLA-A2[66]	
CLCA2	HLA-A2[67]	
CPSF	HLA-A2[68]	
Cyclin D1	HLA-A2[69]	HLA-DR4[70]
Cyp-B	HLA-A24[71]	
DKK1	HLA-A2[72]	
ENAH (hMena)	HLA-A2[73]	
EpCAM	HLA-A24[74]	
EphA3		HLA-DR11[75]
EZH2	HLA-A2[76]	
	HLA-A24[77]	
FGF-5	HLA-A3[78]	
HST-2(FGF-6)	HLA-A31[79]	
G250	HLA-A2[80]	
Glypican-3	HLA-A2[81]	
	HLA-A24[81]	
HEPACAM	HLA-A2[82]	

Antigen	MHC-I	MHC-II
Hepsin	HLA-A2[83]	
Her-2/neu	HLA-A2[84]	HLA-DR11[86]
	HLA-A3[4]	
	HLA-A24[85]	
HLA-DOB	HLA-A2[87]	
HLA-G		HLA-DR15[88]
		HLA-DR53[88]
HSPH1	HLA-A2[89]	
	HLA-A24[89]	
iCE	HLA-B7[90]	
IDO1	HLA-A2[91]	
IGF2B3	HLA-A2[92]	
	HLA-A3[92]	
IL13Ralpha2	HLA-A2[93]	
IMP-3		HLA-DR9[94]
		HLA-DR53[94]
Kallikrein 4	HLA-A2[95]	HLA-DP4[96]
		HLA-DR4[96]
		HLA-DR7[96]
KIF20A	HLA-A2[97]	
Lengsin	HLA-A2[98]	
Livin(ML-IAP)	HLA-A2[99]	
M-CSF	HLA-B35[100]	
MCSP		HLA-DR11[101]
Mdm-2	HLA-A2[102]	
Meloe	HLA-A2[103]	HLA-DQ2[104]
		HLA-DQ6[105]

Antigen	MHC-I	MHC-II
		HLA-DR1[104]
		HLA-DR11[105]
Midkine	HLA-A2[106]	HLA-DR4[107]
Mmp-2	HLA-A2[108]	
Mmp-7	HLA-A3[109]	
MUC-1	HLA-A2[110]	HLA-DR3[111]
MUC5AC	HLA-A24[112]	
NA17	HLA-A2[113]	
Nectin-4	HLA-A2[114]	
p15	HLA-A24[115]	
p53	HLA-A2[116]	HLA-DP5[119]
	HLA-A24[117]	HLA-DR4[120]
	HLA-B46[118]	HLA-DR14[119]
PAX5	HLA-A2[121]	
PBF	HLA-B55[122]	
PLAC1	HLA-A2[123]	
PRAME	HLA-A2[124]	
	HLA-A24[125]	
PSMA	HLA-A2[126]	HLA-DR3[128]
	HLA-A24[127]	HLA-DR4[128]
		HLA-DR7[128]
		HLA-DR11[128]
RAGE-1	HLA-B7[129]	
RGS5	HLA-A2[130]	
	HLA-A3[130]	
RHOC	HLA-A3[131]	
RNF43	HLA-A2[132]	

Antigen	MHC-I	MHC-II
	HLA-A24[132]	
RU1	HLA-B51[133]	
RU2AS	HLA-B7[134]	
SART-1	HLA-A24[135]	
	HLA-A26[136]	
SART-2	HLA-A24[137]	
SART-3	HLA-A10[138]	
	HLA-A24[139]	
Secrenin 1	HLA-A2[140]	
SOX-10	HLA-A2[40]	
STEAP1	HLA-A2[141]	
survivin	HLA-A2[142]	
Survivin-2B	HLA-A24[143]	
Telomerase	HLA-A2[144]	HLA-DR7[145]
		HLA-DR11[146]
TPBG	HLA-A2[147]	
TRG	HLA-B52[148]	
	HLA-B62[148]	
VEGF	HLA-B27[149]	
WT1	HLA-A2[150]	HLA-DP5[152]
	HLA-A24[151]	HLA-DR4[153]

Table S3. Tumor-specific antigens.

Antigen	MHC-I	MHC-II
BAGE-1	HLA-Cw16[154]	
CT37/FMR1NB	HLA-A2[155]	
Cyclin-A1	HLA-A2[156]	
DAM-6	HLA-A2[157]	
D393-CD20n		HLA-DR4[158]
GAGE-1/2/8	HLA-Cw6[159, 160]	
GAGE-3/4/5/6/7	HLA-A29[160]	
GnT-V(intron)	HLA-A2[161]	
HERV-E	HLA-A11[162]	
HERV-K-MEL	HLA-A2[163]	
KK-LC-1	HLA-B15[164]	
KM-HN-1	HLA-A24[165]	
LAGE-1	HLA-A2[166]	HLA-DP4[170]
	HLA-A31[167]	HLA-DR3[171]
	HLA-A68[168]	HLA-DR4[172]
	HLA-B7[169]	HLA-DR11[173]
		HLA-DR12[173]
		HLA-DR15[174]
LRPAP1	HLA-A2[175]	
LY6K	HLA-A24[176]	HLA-DP5[177]
		HLA-DR15[177]
MAGE-A1	HLA-A1[178]	HLA-DP4[189]
	HLA-A2[179]	HLA-DR13[190]
	HLA-A3[180]	HLA-DR15[191]
	HLA-A24[181]	

Antigen	MHC-I	MHC-II
	HLA-A28[182]	
	HLA-A68[182]	
	HLA-B7[183]	
	HLA-B35[18, 182]	
	HLA-B37[184]	
	HLA-B44[185]	
	HLA-B53[182]	
	HLA-B57[186]	
	HLA-Cw2[182]	
	HLA-Cw3[182]	
	HLA-Cw7[187]	
	HLA-Cw16[188]	
MAGE-A2	HLA-A2[192]	HLA-DR13[190]
	HLA-A3[180]	
	HLA-A24[193]	
	HLA-B37[184]	
	HLA-Cw7[194]	
MAGE-A3	HLA-A1[195]	HLA-DP4[203]
	HLA-A2[196]	HLA-DQ6[204]
	HLA-A3[180]	HLA-DR1[205]
	HLA-A24[197]	HLA-DR4[206]
	HLA-B18[198]	HLA-DR7[206]
	HLA-B35[199]	HLA-DR11[207]
	HLA-B37[184]	HLA-DR13[190]
	HLA-B40[200]	
	HLA-B44[201]	
	HLA-B52[202]	

Antigen	MHC-I	MHC-II
MAGE-A4	HLA-Cw7[194]	
	HLA-A1[208]	
	HLA-A2[209]	
	HLA-A24[210]	
	HLA-B37[211]	
MAGE-A6	HLA-A34[212]	HLA-DR4[215]
	HLA-B53[182]	HLA-DR13[182]
	HLA-B37[213]	
	HLA-Cw7[194]	
	HLA-Cw16[214]	
MAGE-A9	HLA-A2[216]	
MAGE-A10	HLA-A2[217]	
	HLA-B53[182]	
MAGE-A12	HLA-A2[196]	HLA-DP4[189]
	HLA-Cw7[218]	
MAGE-C1	HLA-A2[219]	HLA-DQ6[220]
		HLA-DR15[220]
MAGE-C2	HLA-A2[221]	HLA-DR15[224]
	HLA-B44[222]	
	HLA-B57[223]	
NA88-A	HLA-B13[225]	
NY-ES0-1	HLA-A2[226]	HLA-DP4[170]
	HLA-A24[227]	HLA-DR1[233]
	HLA-A31[167]	HLA-DR3[233]
	HLA-A68[228]	HLA-DR4[233]
	HLA-B7[229]	HLA-DR7[233]

Antigen	MHC-I	MHC-II
	HLA-B35[227]	HLA-DR8[234]
	HLA-B49[230]	HLA-DR9[234]
	HLA-B51[231]	HLA-DR15[174]
	HLA-B52[227]	HLA-DR52b[235]
	HLA-C12[227]	
	HLA-Cw3[232]	
	HLA-Cw6[232]	
SAGE	HLA-A24[210]	
Sp17	HLA-A1[236]	
SSX-2	HLA-A2[237]	HLA-DP1[238]
		HLA-DR1[239]
		HLA-DR3[240]
		HLA-DR4[241]
		HLA-DR11[242]
SSX-4		HLA-DP10[243]
		HLA-DR3[243]
		HLA-DR8[244]
		HLA-DR11[243]
		HLA-DR15[243]
		HLA-DR52[244]
TAG-1	HLA-A2[245]	
	HLA-B8[245]	
TAG-2	HLA-B8[245]	
TRAG-3	HLA-A2[246]	
TRP-2 (intron)	HLA-A68[247]	
XAGE-1b/GAGED2a	HLA-A2[248]	

Antigen	MHC-I	MHC-II
	HLA-DR4[248]	
	HLA-DR9[249]	

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