



**C**

#	b	Seq.	y	#
1	148.076	F		14
2	261.160	I	1482.759	13
3	332.197	A	1369.675	12
4	431.265	V	1298.638	11
5	488.287	G	1199.569	10
6	651.350	Y	1142.548	9
7	750.418	V	979.484	8
8	865.445	D	880.416	7
9	980.472	D	765.389	6
10	1081.520	T	650.362	5
11	1209.579	Q	549.314	4
12	1356.647	F	421.256	3
13	1455.715	V	274.187	2
14		R	175.119	1

**Figure W1.** (A) Manually annotated MS/MS fragmentation spectrum of the peptide FIAVGYVDDTQFVR (from the doubly charged parent peptide at  $m/z$  815.348, blue diamond), identifying human HLA class I histocompatibility antigen, followed by the MS/MS fragmentation spectrum annotated by the Mascot software (B). The table below the fragmentation spectra (C) shows ions from the b and y series.

**Table W1.** Sequences, Scores, and Total Number of Peptides Identifying Proteins of Interest.

Proteins of Interest	Peptides	MDA-MB-231: Number of Peptides (and Mascot Scores)				B02: Number of Peptides (and Mascot Scores)			
		#1	#2	#3	#4	#1	#2	#3	#4
CD51	SSASFNVIEFPYK				1 (60)				
	IYIGDDNPLTLIVK				2 (91; 92)				1 (62)
	AGTQLLAGLR					1 (51)			
	STGLNAVPSQILEGQWAAR					1 (54)			
CD9 Kinectin	LTPITIFMEYR							1 (33)	
	KDVLETFTVK				1 (74)	1 (63)	1 (45)	2 (74; 61)	1 (70)
	SVLAETEGILQK			1 (90)					2 (55; 91)
	SVEELLEAELLK			1 (74)		1 (33)	1 (50)		4 (45; 72; 75; 60)
	DAVSNTTNQLESK			1 (45)					1 (86)
	WLQDLQFEENESLK			1 (62)					2 (57; 58)
	VQELQNLK					1 (61)			1 (43)
	AQQSLELIQSK					1 (64)			2 (38; 49)
	IHVSYQETQQMQMK							1 (39)	
	AAGDTTVIENSVDVSPETESSEK								1 (75)
Prohibitin	LSDALAVEDDQVAPVPLNVVETSSSVR					1 (39)			
	FDAGELITQR				1 (70)	3 (32; 38; 68)			3 (75; 87; 81)
	VLPSITTEILK				1 (46)	1 (39)	1 (30)	1 (30)	2 (30; 37)
	IFTSIGEDYDER				3 (60; 60; 62)			1 (43)	2 (60; 42)
	NITYLPAGQSVLLQLPQ				1 (36; 62)				1 (94)
	DLQNVNITLR					1 (46)			2 (34; 76)
	AAELIANSLATAGDGLIELR						1 (49)	3 (68; 50; 72)	3 (112; 76; 62)
	KLEAAEDIAYQLSR							1 (34)	1 (111)
	IPLNDLFR			1 (48)	1 (66)				1 (48)
	CD107b Class I HLA	VDLGTLR	1 (42)			1 (39)			
FSDAASQR		1 (78)							
YFFTSVSR		3 (66; 60; 56)				1 (33)			
WEAAHVAEQLR		3 (71; 31; 62)				1 (51)			
MYGCDVGSWDR		3 (47; 80; 80)			2 (57; 73)				
YFYTAVSR		1 (47)							
MYGCDLGPDGR		1 (66)							
WAAVVVPSGEEQR		5 (61; 44; 61; 61; 61)	1 (43)		2 (61; 62)	2 (40; 33)			1 (55)
SWTAADTAAQITQR		4 (52; 63; 36; 94)	4 (39; 45; 50; 73)	4 (46; 36; 50; 34)	2 (91; 52)				
AYLEGECVEWLR			3 (69; 65; 75)						
FITVGYVDDTLFVR		3 (111; 110; 59)		3 (44; 65; 79)					
MYGCDVGPDGR		2 (68; 35)							
TYLEGTCVEWLR				1 (41)					
SWTAADMAAQITTK		2 (64; 50)			3 (96; 100; 78)				
WAAVVVPSGQEQR		7 (58; 39; 44; 62; 44; 32; 50)		8 (45; 61; 41; 37; 62; 50; 44; 44)	2 (50; 50)	3 (39; 44; 62)	4 (40; 38; 48; 44)	1 (44)	1 (61)
AYLEGTCVEWLR		20 (48; 77; 78; 78; 86; 83; 74; 84; 82; 46; 89; 80; 85; 63; 86; 76; 64; 49; 61; 47)		1 (43)		2 (71; 84)			
FIAVGYVDDTQFVR		20 (50; 41; 83; 90; 61; 90; 97; 75; 93; 78; 90; 89; 54; 96; 90; 93; 89; 80; 65; 75)	13 (96; 107; 98; 98; 53; 90; 57; 99; 89; 97; 90; 97; 66)	12 (84; 102; 56; 86; 98; 97; 96; 31; 54; 98; 72; 72)	1 (81)	4 (103; 92; 106; 87)	1 (81)		

**Table W1.** (continued)

Proteins of Interest	Peptides	MDA-MB-231: Number of Peptides (and Mascot Scores)				B02: Number of Peptides (and Mascot Scores)			
		#1	#2	#3	#4	#1	#2	#3	#4
	APWIEQEGPEYWDGETR	6 (68; 76; 74; 61; 31; 42)	8 (97; 51; 82; 50; 57; 49; 81; 36)	6 (40; 81; 79; 63; 81; 42)	4 (96; 104; 90; 54)	1 (60)			
	GGSYSQAACSDSAQGSVDVSLTA				2 (41; 42)				
	KGGYSQAASSDSAQGSVDVSLTACK	2 (85; 81)	2 (93; 56)	1 (42)	1 (77)				
	DGEDQTQDTELVEYR	1 (75)	3 (72; 73; 81)			2 (33; 48)			
	DGEDQTQDTELVEYRPAQDR	2 (41; 42)		1 (43)		2 (48; 33)			
	DGEDQTQDTELVEYRPAQDGTQK	1 (56)	4 (32; 39; 44; 32)		3 (52; 30; 41)	1 (30)	3 (31; 46; 33)		1 (45)
	GGSYSQAASSDSAQGSVDVSLTACK		1 (98)			1 (75)			
	APWIEQEGPEYWDR	1 (65)	1 (49)						

For each protein of interest, the total number of peptides is given for each experiment ( $n = 4$  for MDA-MB-231 and  $n = 4$  for B02 cell line, from four different MDA vs B02 analyses). The numbers in parentheses represent the Mascot scores (rounded down to the nearest number). For class I HLA, a subset of nonredundant peptides has been selected for the sake of clarity.