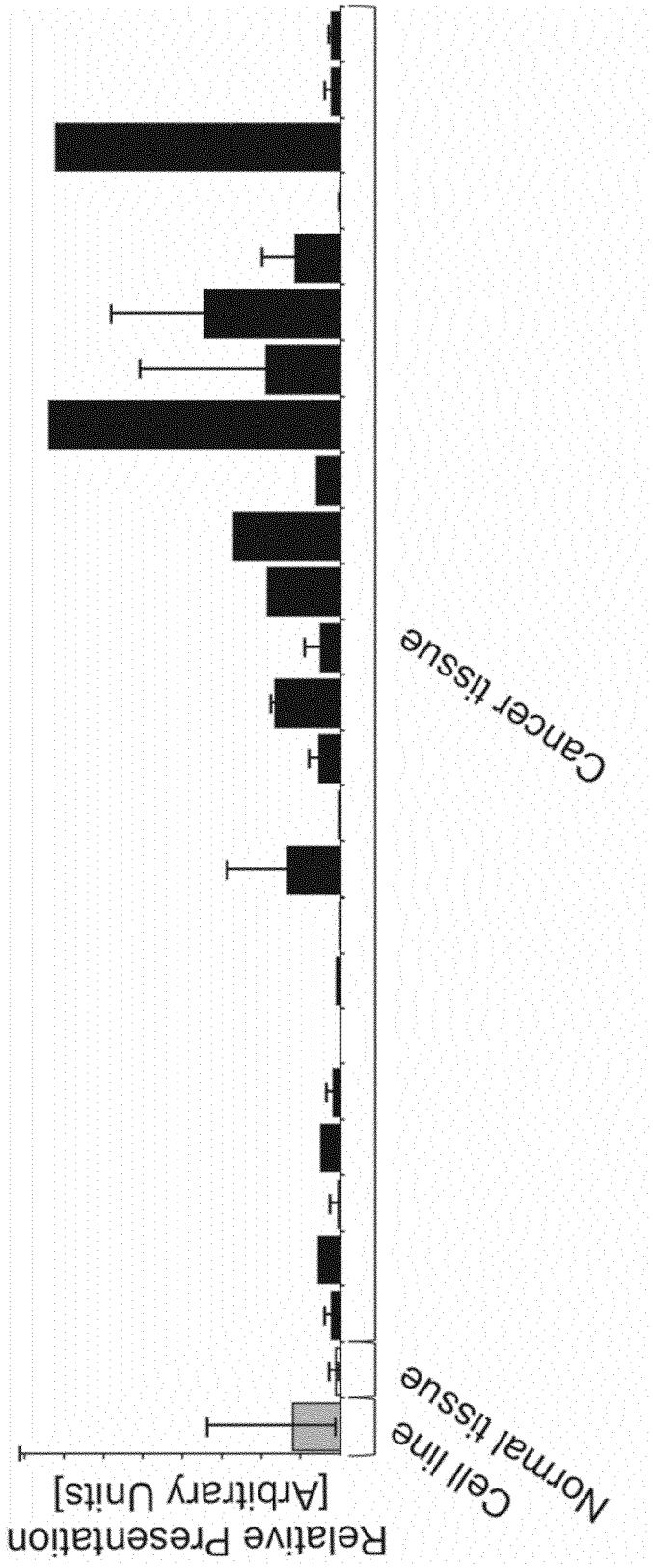
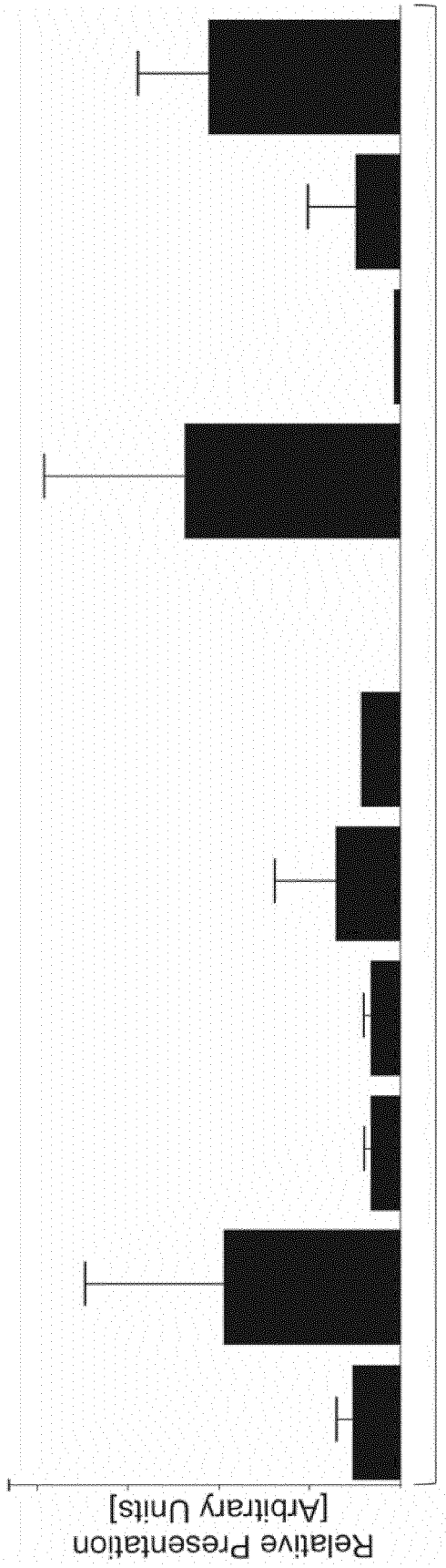
Figure 1A
Peptide: LLLPLLPPLSPSLG (A*02)
SEQ ID NO: 33



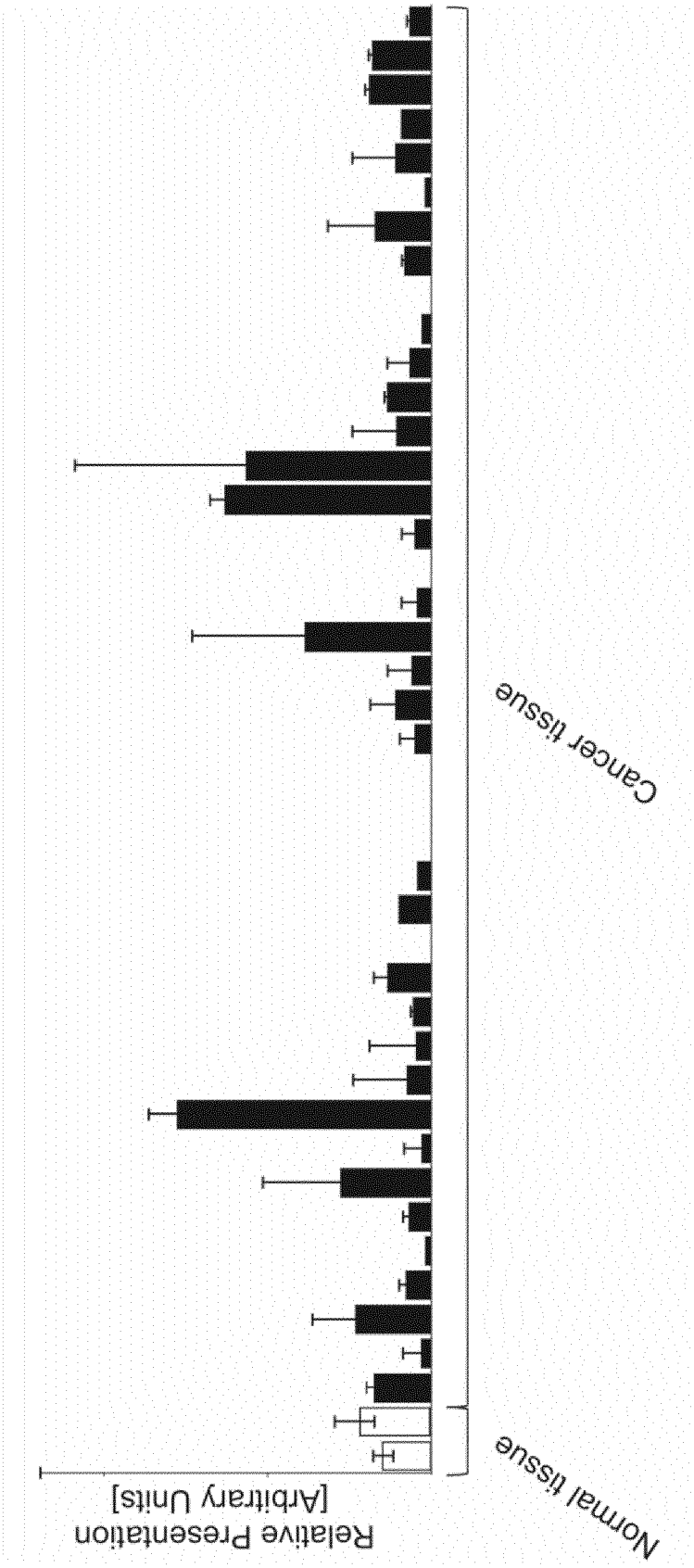
Peptide detected on
1 cell line (1 pancreatic), 1 normal tissue (1 thyroid gland), 22 cancer tissues (5 brain cancers, 1 breast cancer, 1 colon cancer, 1 esophageal cancer, 1 gallbladder cancer, 1 liver cancer, 10 lung cancers, 1 pancreas cancer, 1 stomach cancer) (from left to right)

Figure 1B
Peptide: NYIPVKNGKQF (A*24)
SEQ ID NO: 103



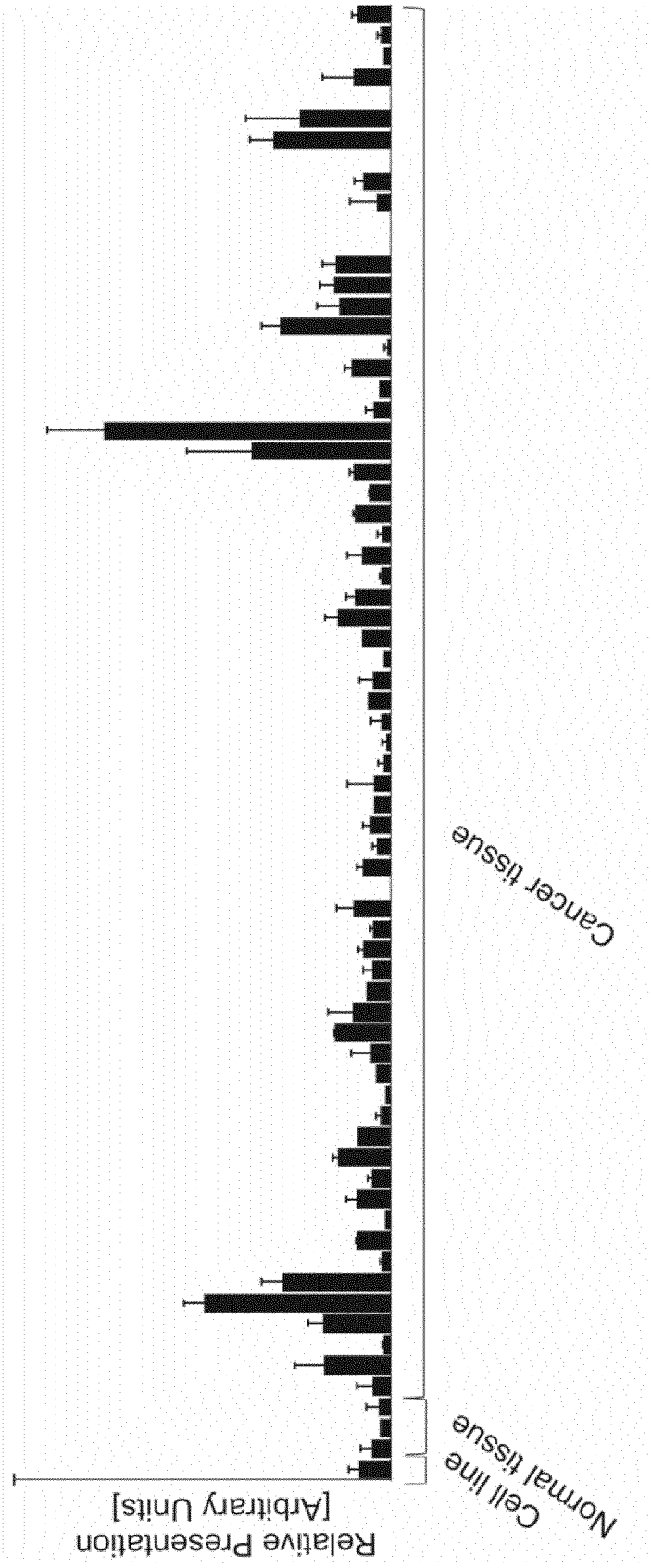
Peptide detected on
11 cancer tissues (1 brain cancer, 1 liver cancer, 8 lung cancers, 1 prostate cancer) (from left to right)

Figure 1C
Peptide: EYLDRIGQLFF (A*24)
SEQ ID NO: 131



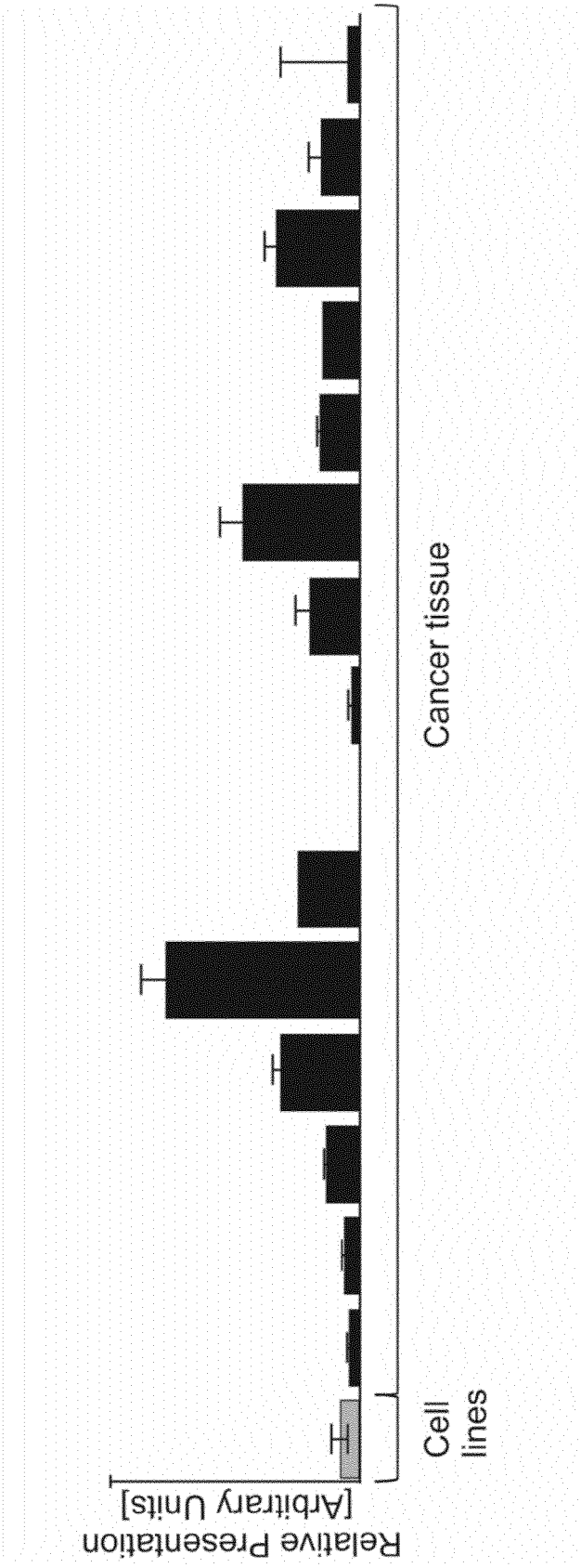
Peptide detected on
2 normal tissues (1 kidney, 1 lung), 41 cancer tissues (2 brain cancers, 1 kidney cancer, 3 liver cancers, 29 lung cancers, 2 prostate cancers, 4 stomach cancers) (from left to right)

Figure 1D
Peptide: FYINGQYQF (A*24)
SEQ ID NO: 176



Peptide detected on
1 prostate benign hyperplasia, 3 normal tissues (1 kidney, 1 pituitary gland, 1 skin), 67 cancer tissues (4 brain cancers, 2 liver cancers, 42 lung cancers, 12 prostate cancers, 7 stomach cancers) (from left to right)

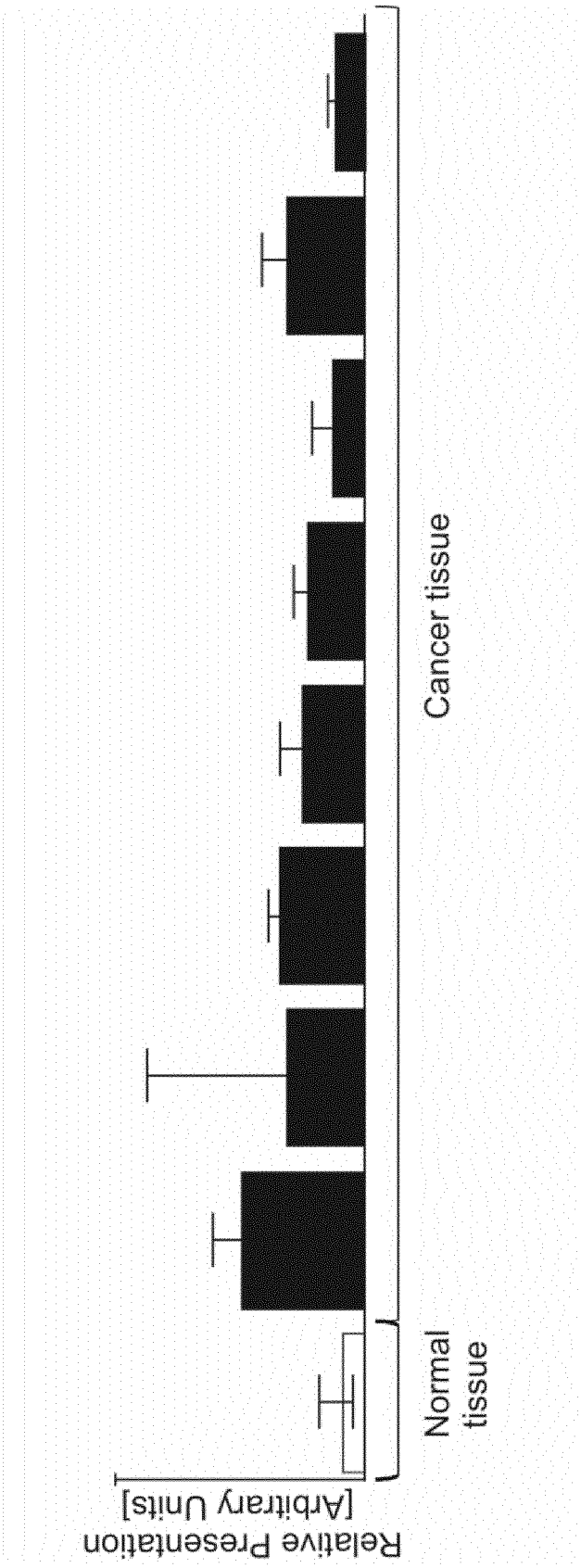
Figure 1E
Peptide: HLYNNEEQV (A*02)
SEQ ID NO: 16



Peptide detected on
1 cell line (pancreas), 15 cancer tissues (1 bile duct cancer, 1 esophageal cancer, 6 liver cancers, 5 lung cancers, 2 urinary bladder cancers) (from left to right)

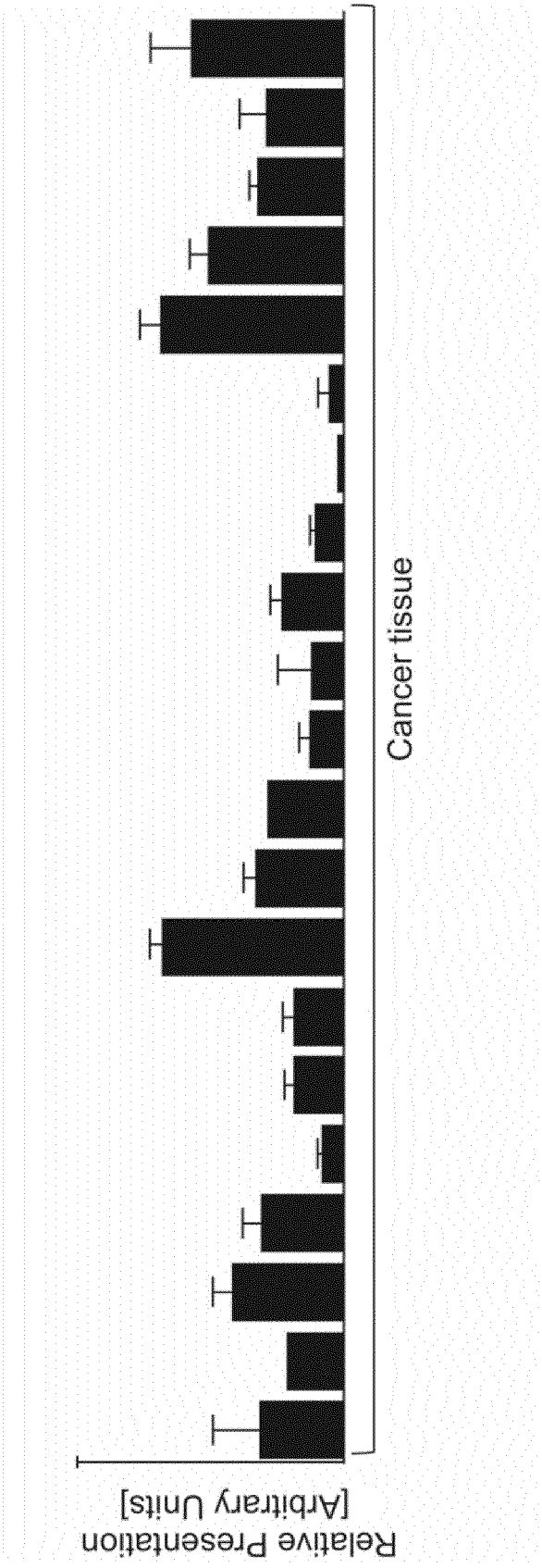
Figure 1F

Peptide: YVLPKLYVKL (A*02)
SEQ ID NO: 35



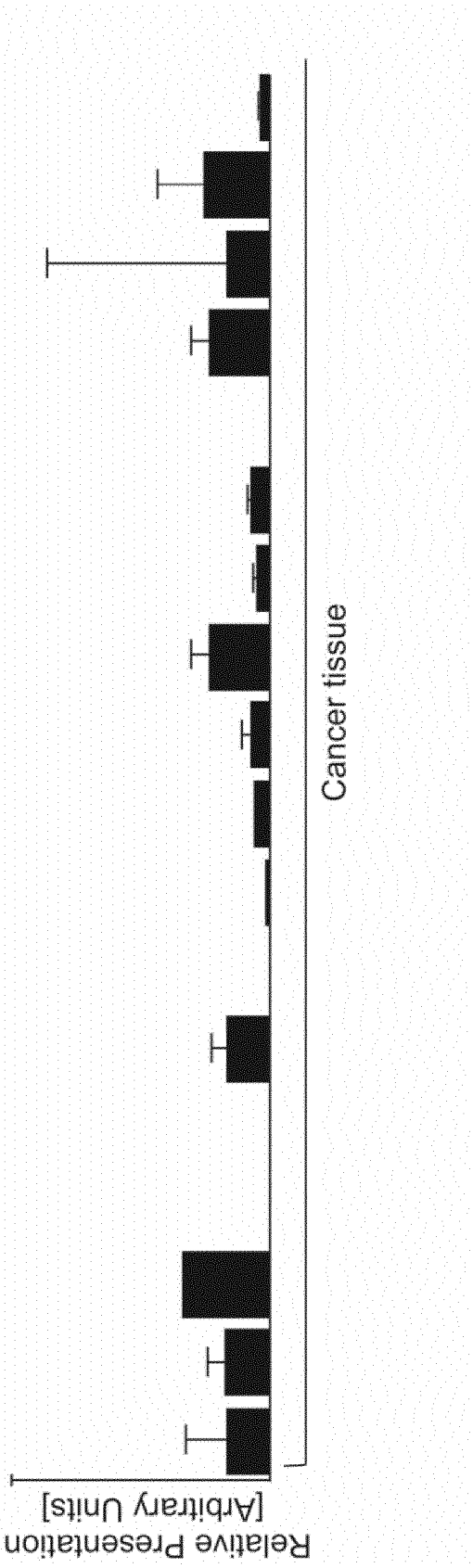
Peptide detected on
1 normal tissue (1 leukocyte sample), 8 cancer tissues (1 head-and-neck cancer, 3 leukocytic leukemia cancers, 1 myeloid cells cancer, 1 gallbladder cancer, 1 colon cancer, 1 lymph node cancer) (from left to right)

Figure 1G
Peptide: SLLALPQDLQA (A*02)
SEQ ID NO: 40



Peptide detected on
21 cancer tissues (1 bile duct cancer, 1 breast cancer, 3 colon cancers, 1 rectum cancer, 6 lung cancers, 2 ovarian cancers, 1 prostate cancer, 3 urinary bladder cancers, 3 uterus cancers) (from left to right)

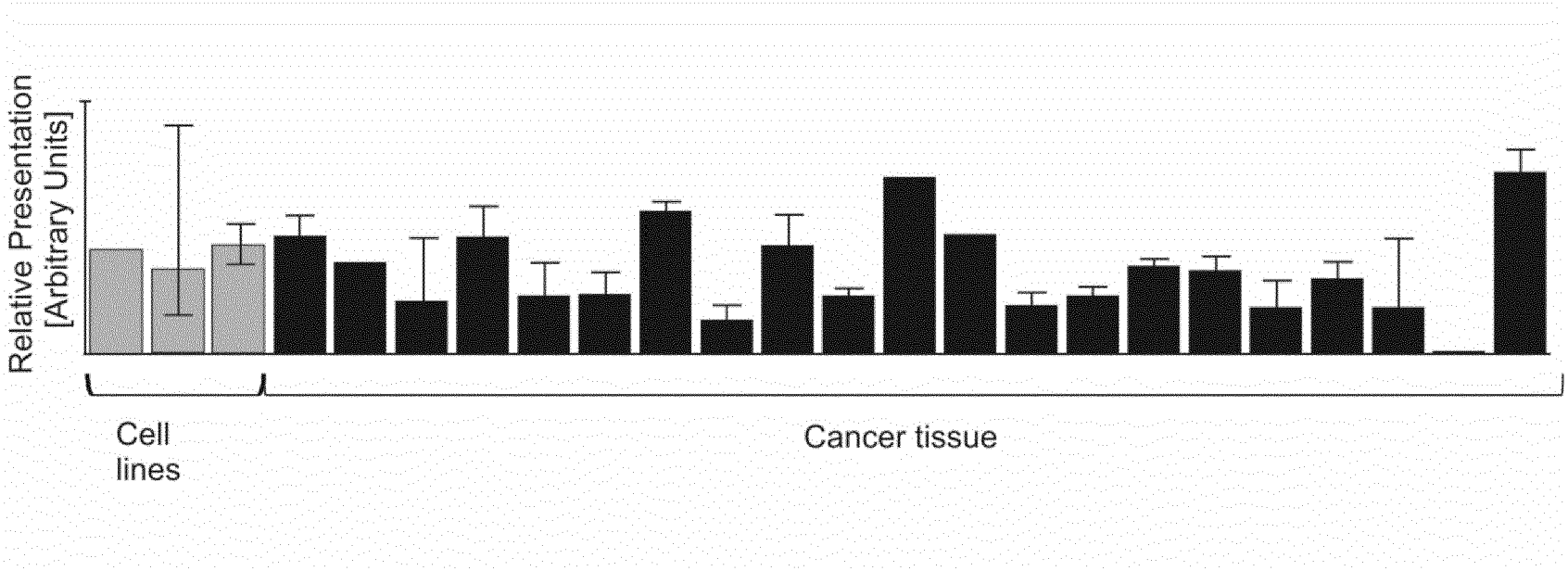
Figure 1H
Peptide: VLSPFILTL (A*02)
SEQ ID NO: 42



Peptide detected on
18 cancer tissues (1 leukocytic leukemia cancer, 1 myeloid cells cancer, 1 breast cancer. 1 kidney cancer, 6 lung cancers, 3 lymph node cancers, 2 ovarian cancers, 2 urinary bladder cancers, 1 uterus cancer) (from left to right)

Figure 1l

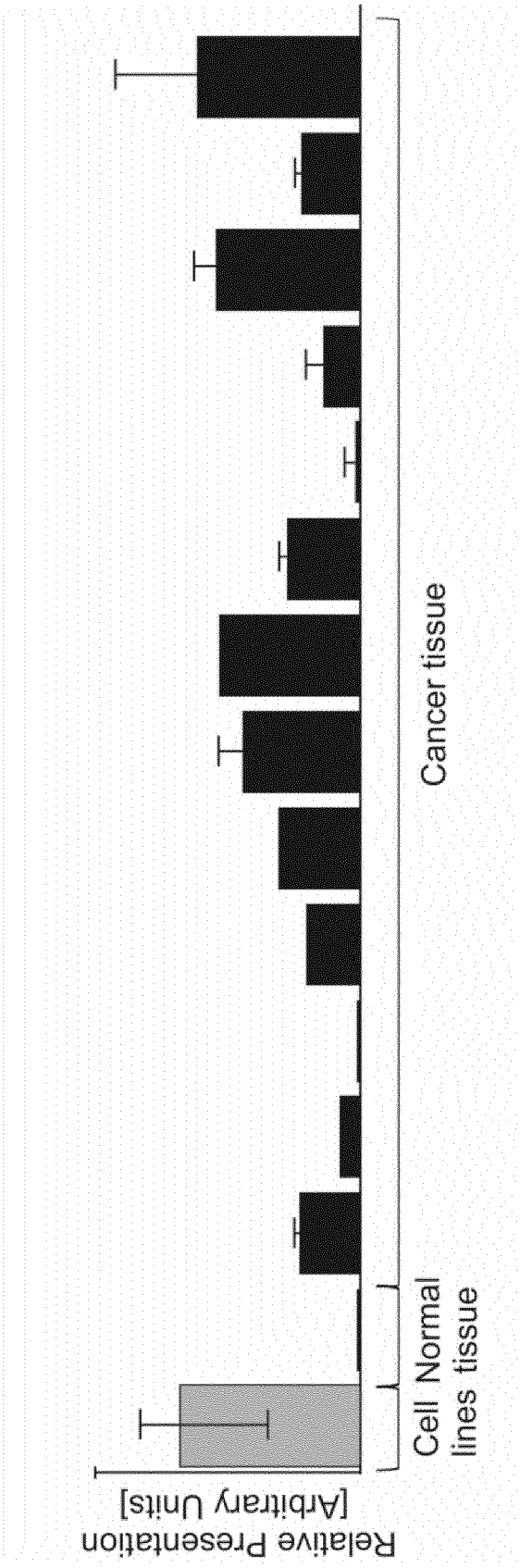
Peptide: SLLSHVIVA (A*02)
SEQ ID NO: 53



Peptide detected on
3 cell lines (1 blood cell, 2 pancreas), 21 cancer tissues (1 head-and-neck cancer, 1 bile duct cancer, 2 leukocytic leukemia cancers, 1 breast cancer, 2 esophageal cancers, 1 gallbladder cancer, 1 kidney cancer, 1 liver cancer, 2 lung cancers, 4 lymph node cancers, 1 ovarian cancer, 3 skin cancers, 1 urinary bladder cancer) (from left to right)

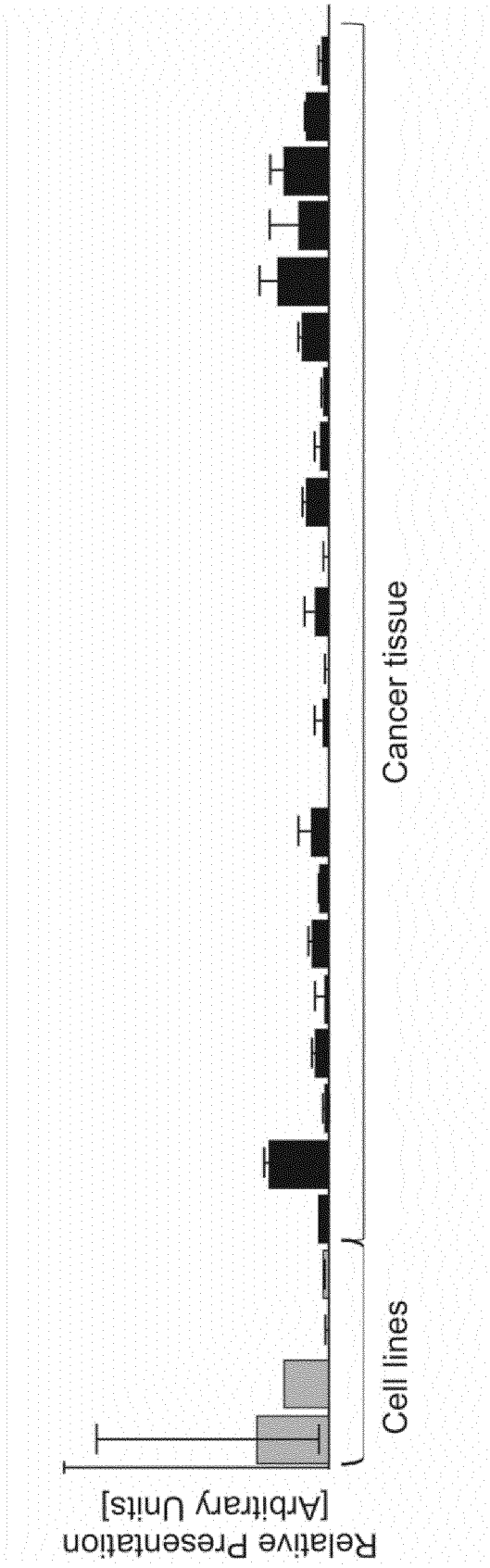
SUBSTITUTE SHEET (RULE 26)

Figure 1J
Peptide: FITDFYTTV (A*02)
SEQ ID NO: 66



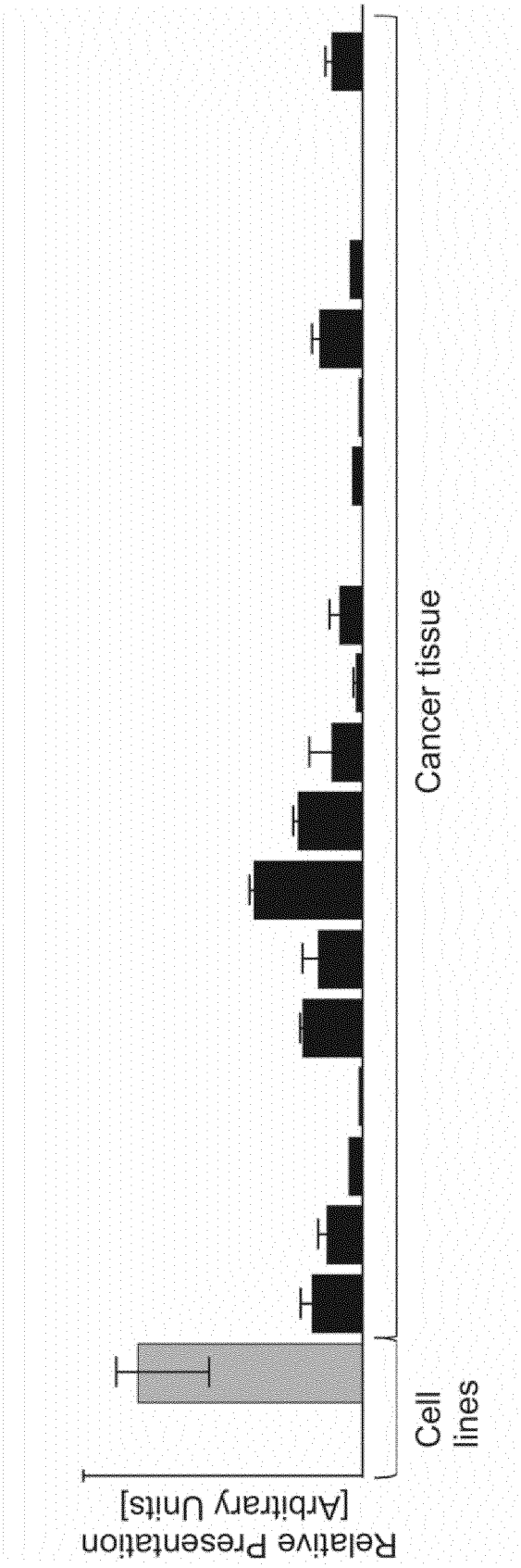
Peptide detected on
1 cell line (skin), 1 normal tissue (1 colon), 13 cancer tissues (1 head-and-neck cancer, 6 brain cancers, 1 colon cancer, 1 liver cancer, 2 skin cancers, 2 urinary bladder cancers) (from left to right)

Figure 1K
Peptide: RLLPKVQEV (A*02)
SEQ ID NO: 325



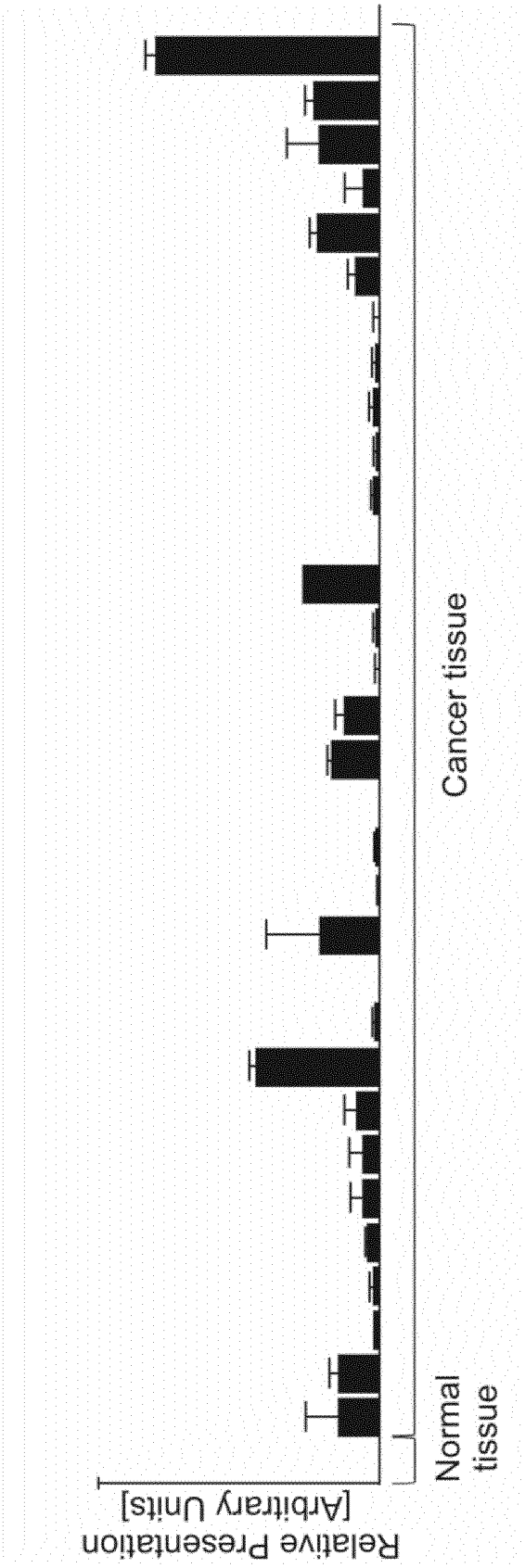
Peptide detected on
4 cell lines (2 blood cells, 1 kidney, 1 large intestine), 22 cancer tissues (1 myeloid cells cancer, 1 breast cancer, 1 esophageal cancer, 4 colon cancers, 1 rectum cancer, 10 lung cancers, 2 ovarian cancers, 1 stomach cancer, 1 urinary bladder cancer) (from left to right)

Figure 1L
Peptide: VLGPGPPPL (A*02)
SEQ ID NO: 339



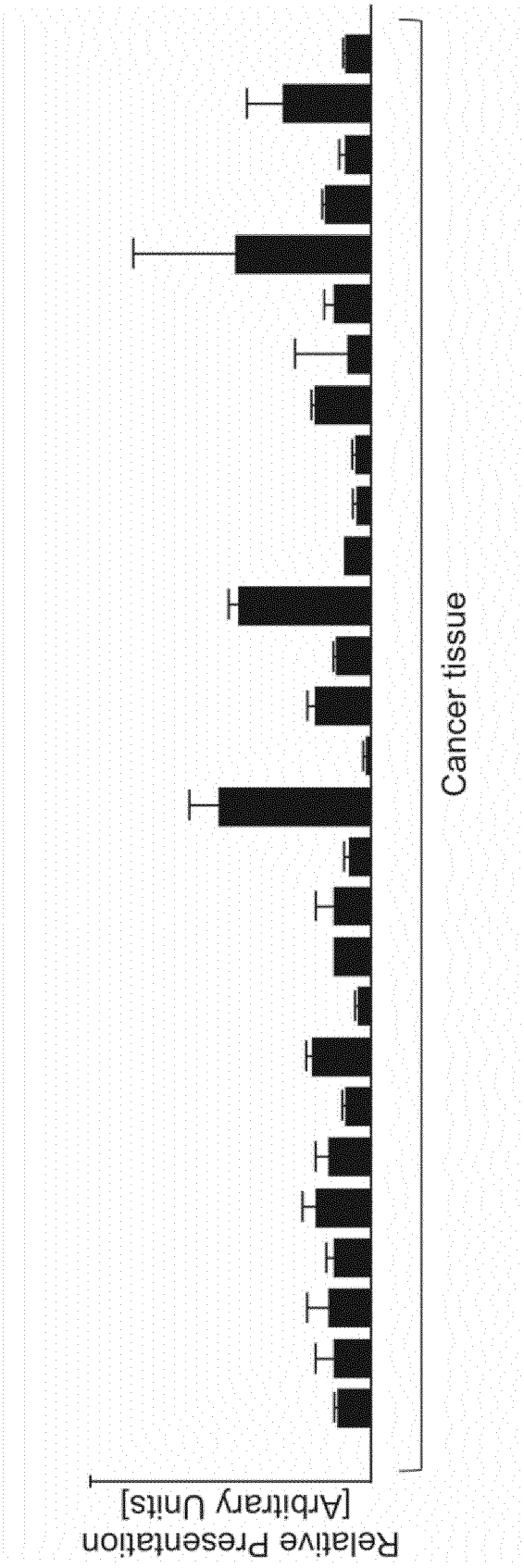
Peptide detected on
4 cell lines (1 kidney, 1 pancreas), 19 cancer tissues (4 leukocytic leukemia cancers, 1 myeloid cells cancer, 1 bone marrow cancer, 2 brain cancers,1 liver cancer, 2 lung cancers, 6 lymph node cancers, 1 skin cancer, 1 uterus cancer) (from left to right)

Figure 1M
Peptide: VYVQILQKL (A*24)
SEQ ID NO: 111



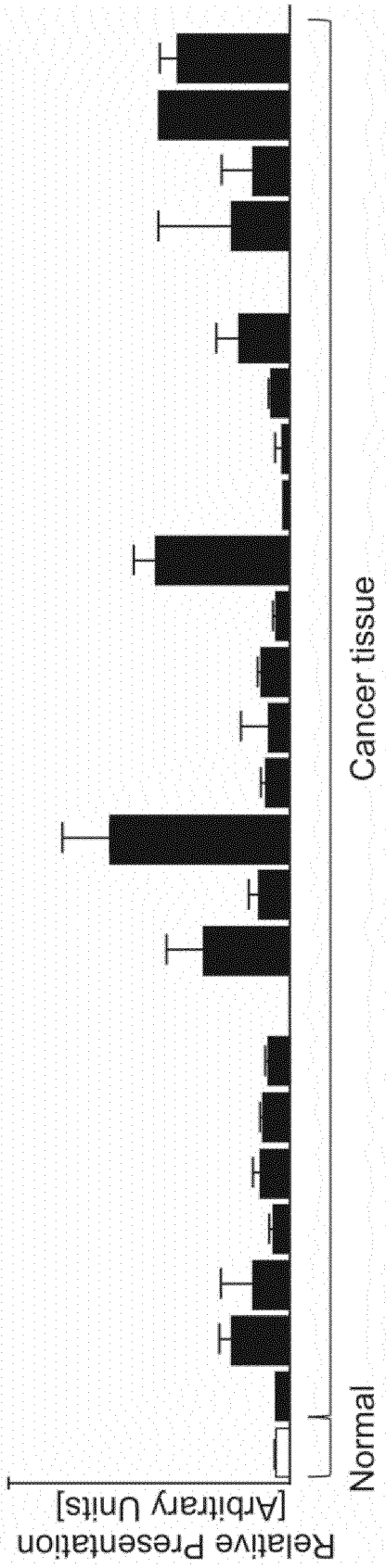
Peptide detected on
1 normal tissue (1 liver), 32 cancer tissues (4 liver cancers, 24 lung cancers, 6 stomach cancers) (from left to right)

Figure 1N
Peptide: IYSFHTLSF (A*24)
SEQ ID NO: 113



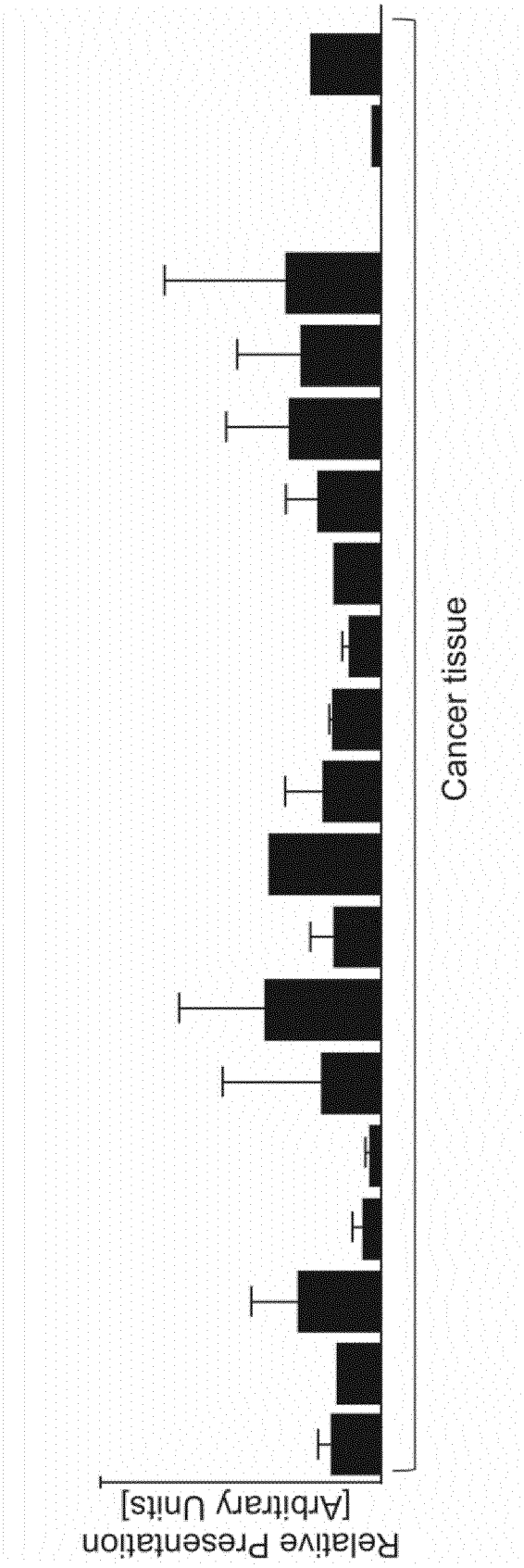
Peptide detected on
28 cancer tissues (1 prostate cancer, 1 brain cancer, 25 lung cancers, 2 stomach cancers) (from left to right)

Figure 1O
Peptide: RYLNKSFVL (A*24)
SEQ ID NO: 115



Peptide detected on
1 normal tissue (1 stomach), 25 cancer tissues (1 brain cancer, 2 liver cancers, 17 lung cancers, 2 prostate cancers, 3 stomach cancers) (from left to right)

Figure 1P
Peptide: RYGLPAAWSTF (A*24)
SEQ ID NO: 121



Peptide detected on
20 cancer tissues (2 liver cancers, 17 lung cancers, 1 stomach cancers) (from left to right)

Figure 1Q
Peptide: VYALKVRTI (A*24)
SEQ ID NO: 145

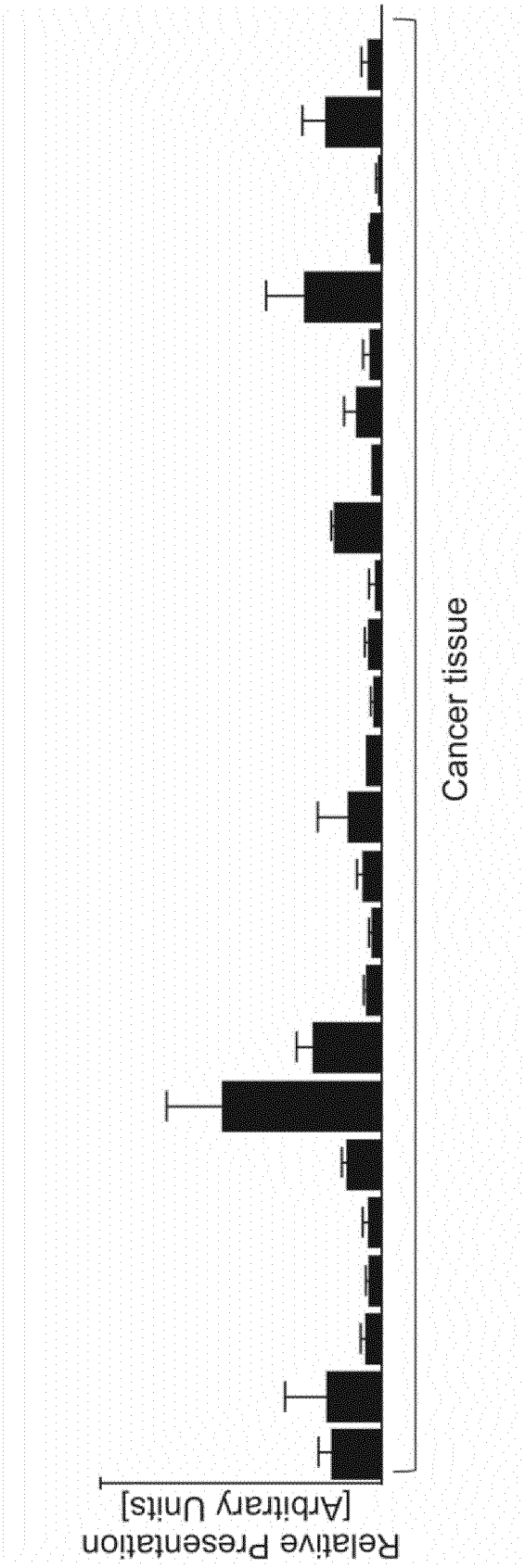
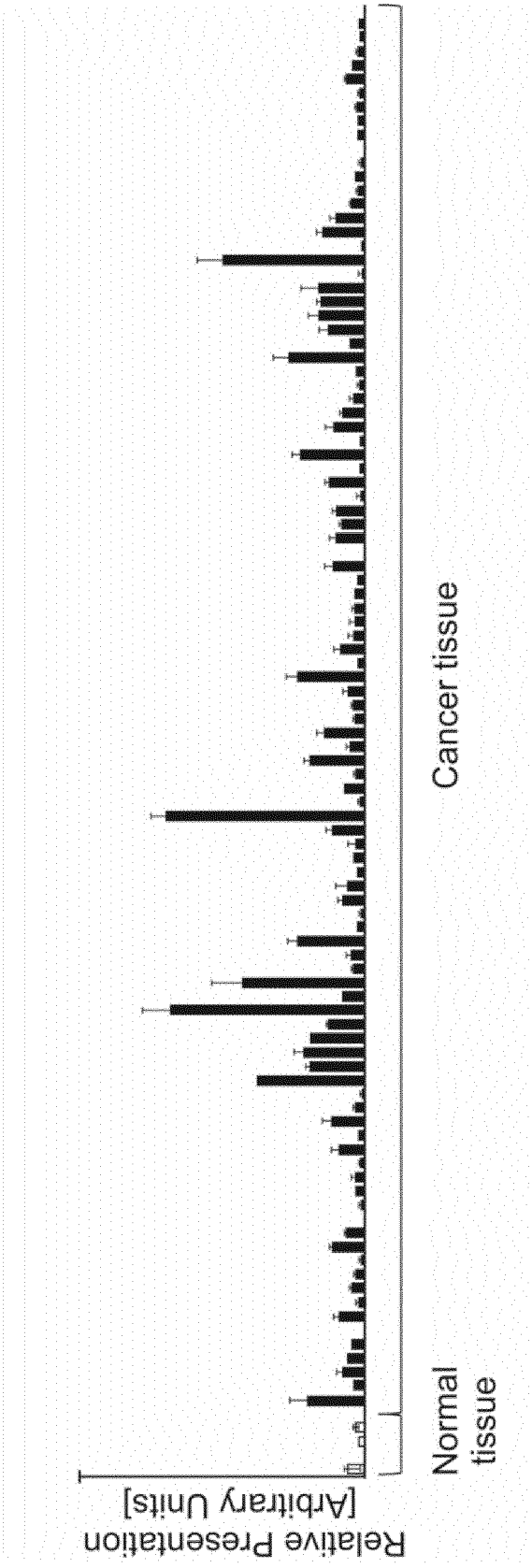
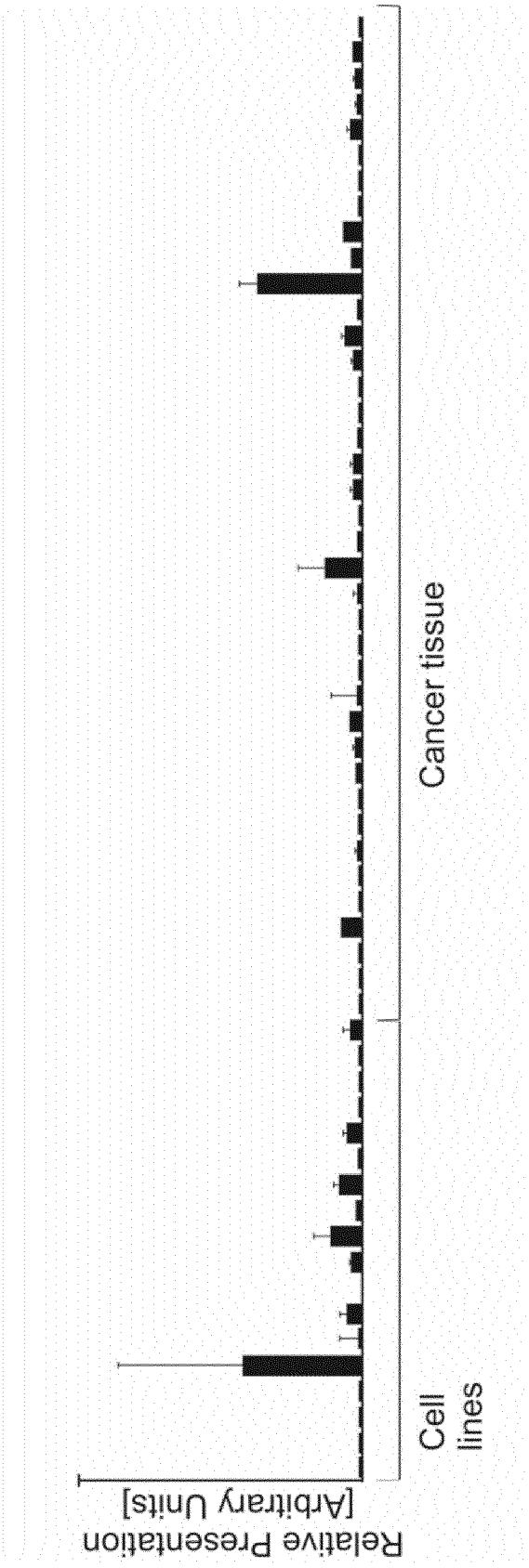


Figure 1R
Peptide: SYGTVSQIF (A*24)
SEQ ID NO: 148



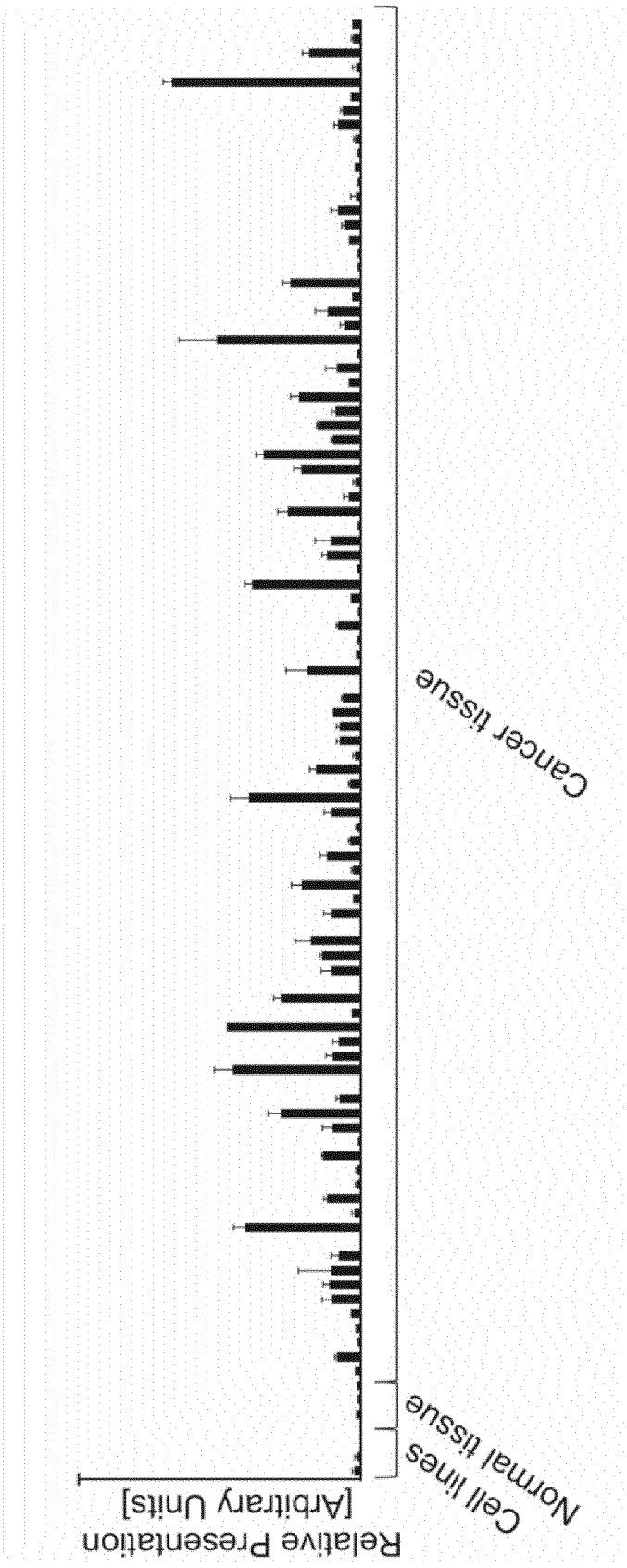
Peptide detected on
5 normal tissues (1 liver, 3 lungs, 1 pituitary gland), 100 cancer tissues (10 brain cancers, 4 liver cancers, 74 lung cancers, 1 prostate cancers, 11 stomach cancers) (from left to right)

Figure 1S
Peptide: IYKWITDNF (A*24)
SEQ ID NO: 155



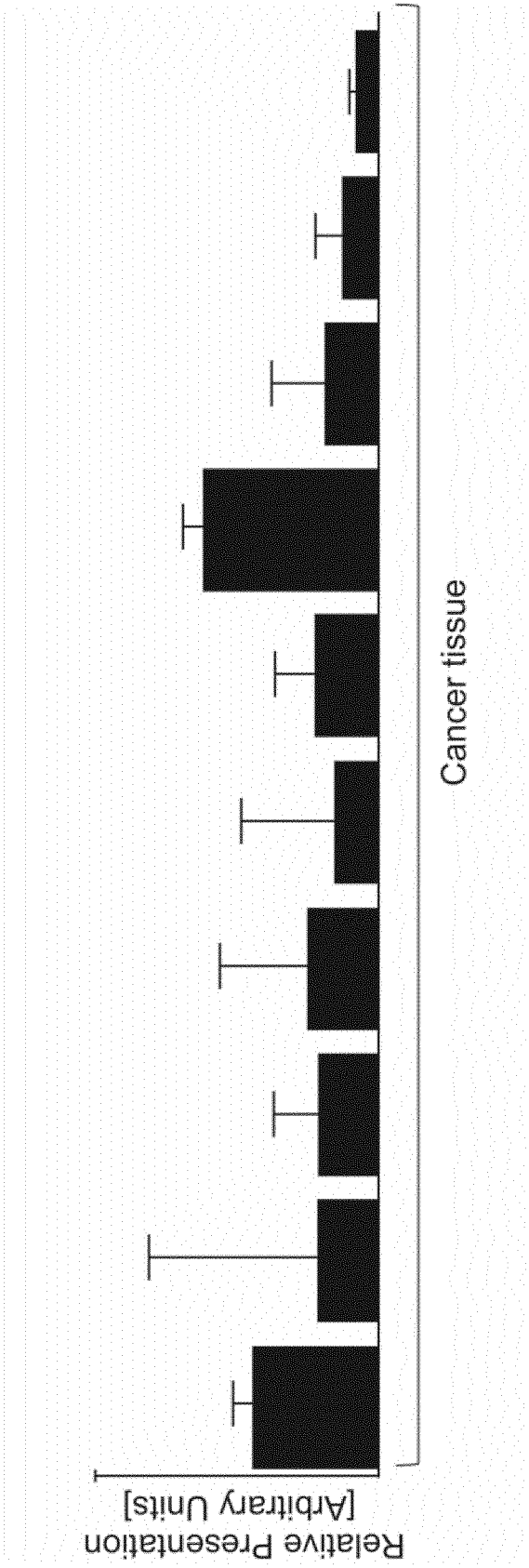
Peptide detected on
4 normal tissues (4 kidneys), 53 cancer tissues (10 brain cancers, 1 liver cancer, 26 lung cancers, 1 prostate cancer, 15 stomach cancers) (from left to right)

Figure 1T
Peptide: KYTSYILAF (A*24)
SEQ ID NO: 162



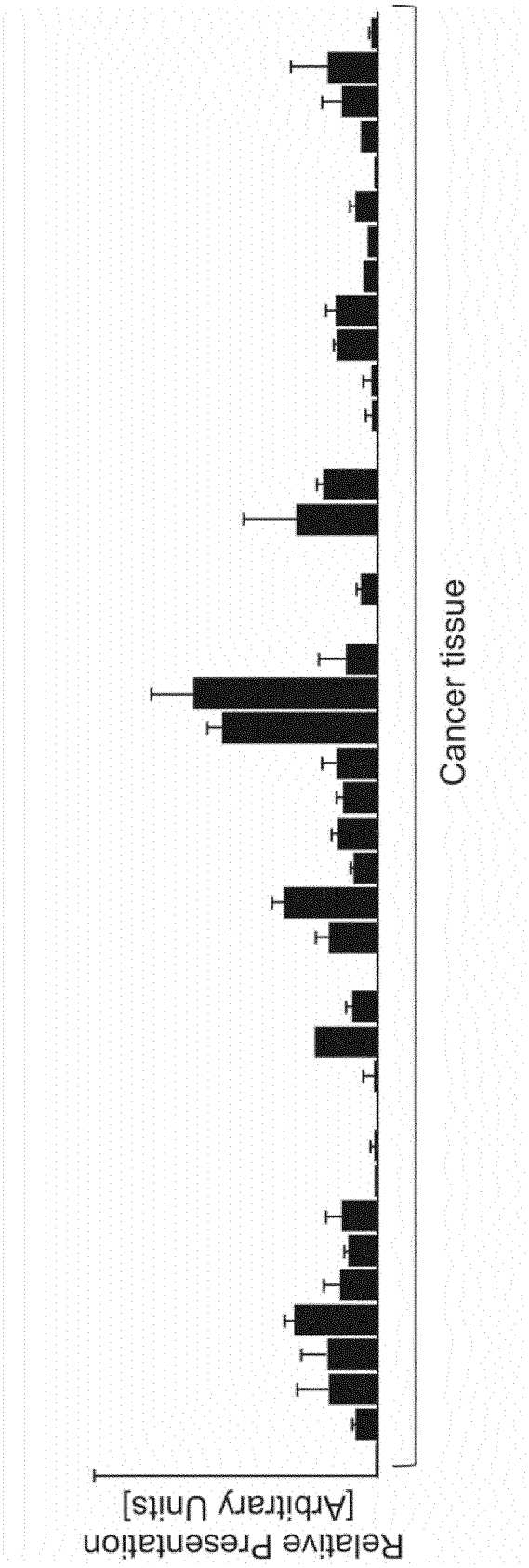
Peptide detected on
3 cell lines (3 prostate), 4 normal tissues (1 liver, 1 lung, 1 pancreas, 1 stomach), 95 cancer tissues (1 kidney cancer, 5 liver cancers, 71 lung cancers, 2 prostate cancers, 16 stomach cancers) (from left to right)

Figure 1U
Peptide: EYFTPLLSGQF (A*24)
SEQ ID NO: 165



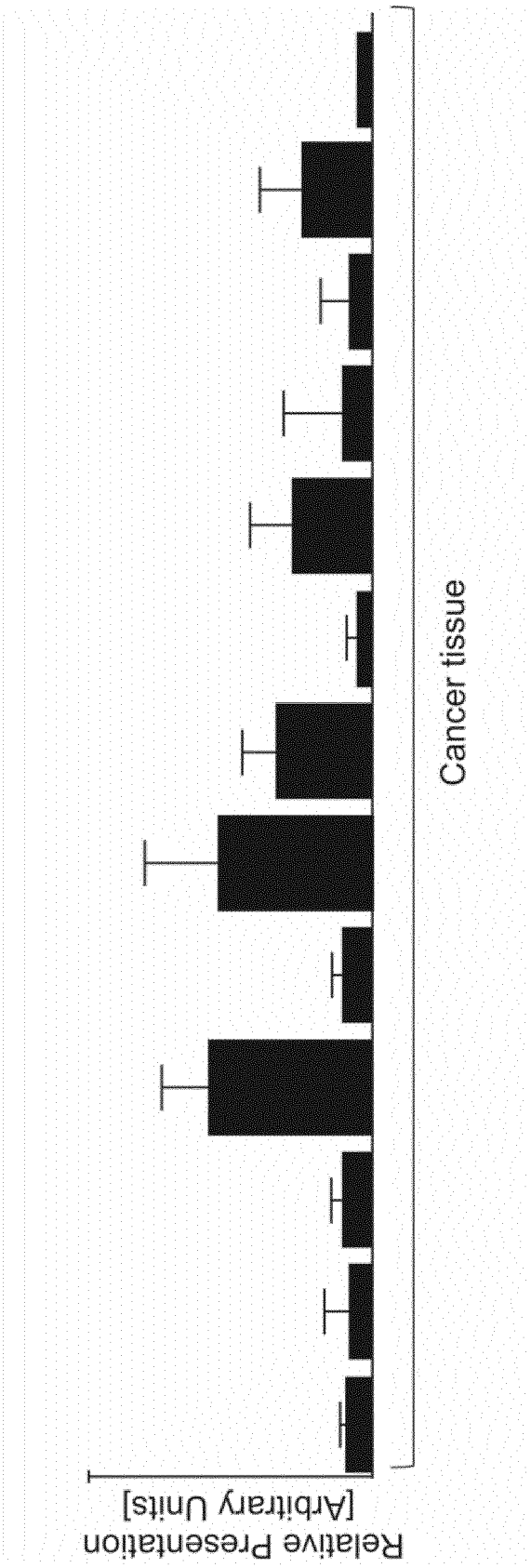
Peptide detected on
10 cancer tissues (10 lung cancers) (from left to right)

Figure 1V
Peptide: LYSPVPFTL (A*24)
SEQ ID NO: 175



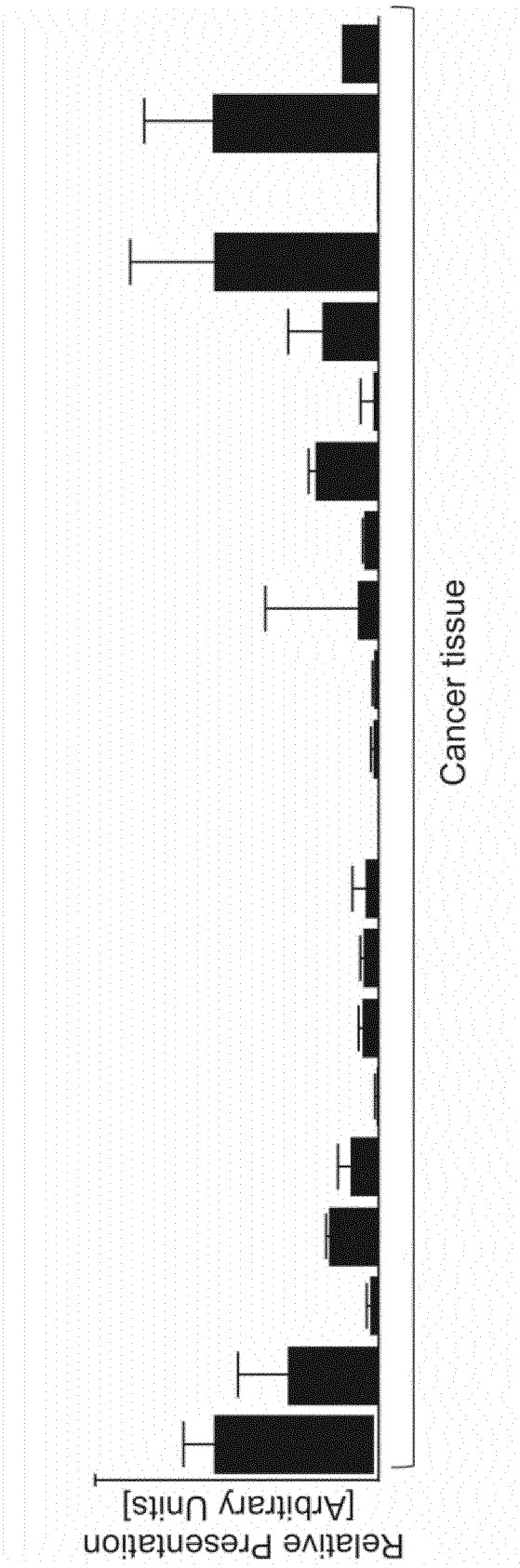
Peptide detected on
42 cancer tissues (4 brain cancers, 1 liver cancer, 30 lung cancers, 7 stomach cancers) (from left to right)

Figure 1W
Peptide: EYnSDLHQFF (A*24)
SEQ ID NO: 345



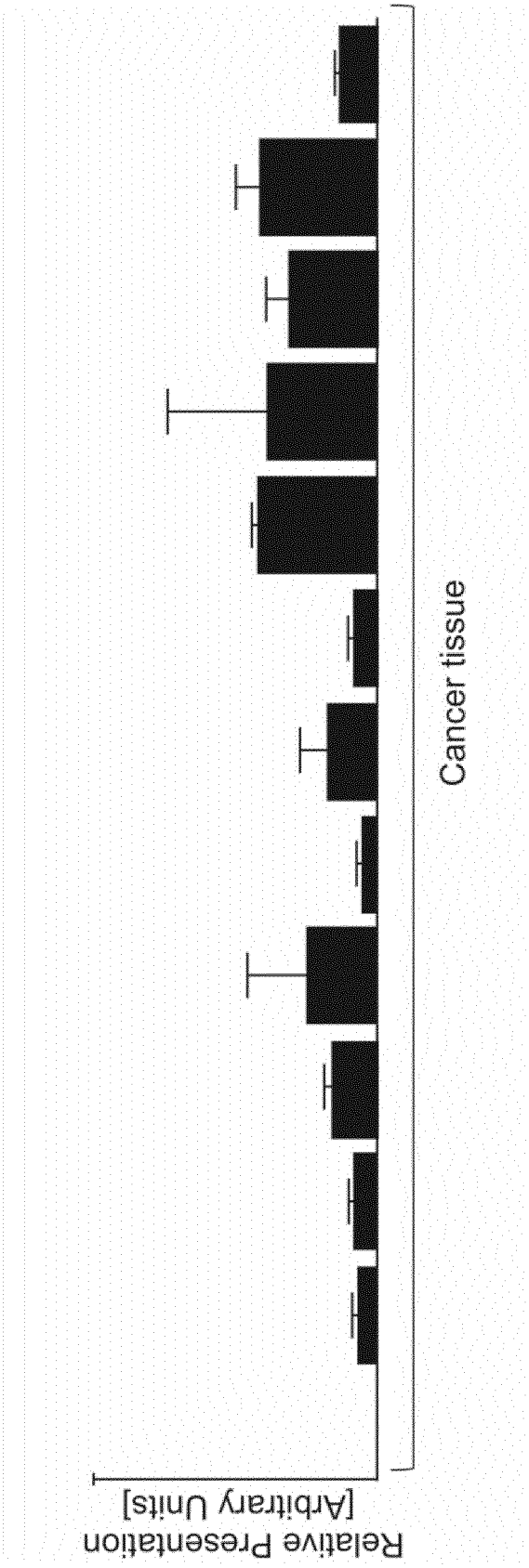
Peptide detected on
13 cancer tissues (3 brain cancers, 10 lung cancers) (from left to right)

Figure 1X
Peptide: IYVIPQPHF (A*24)
SEQ ID NO: 346



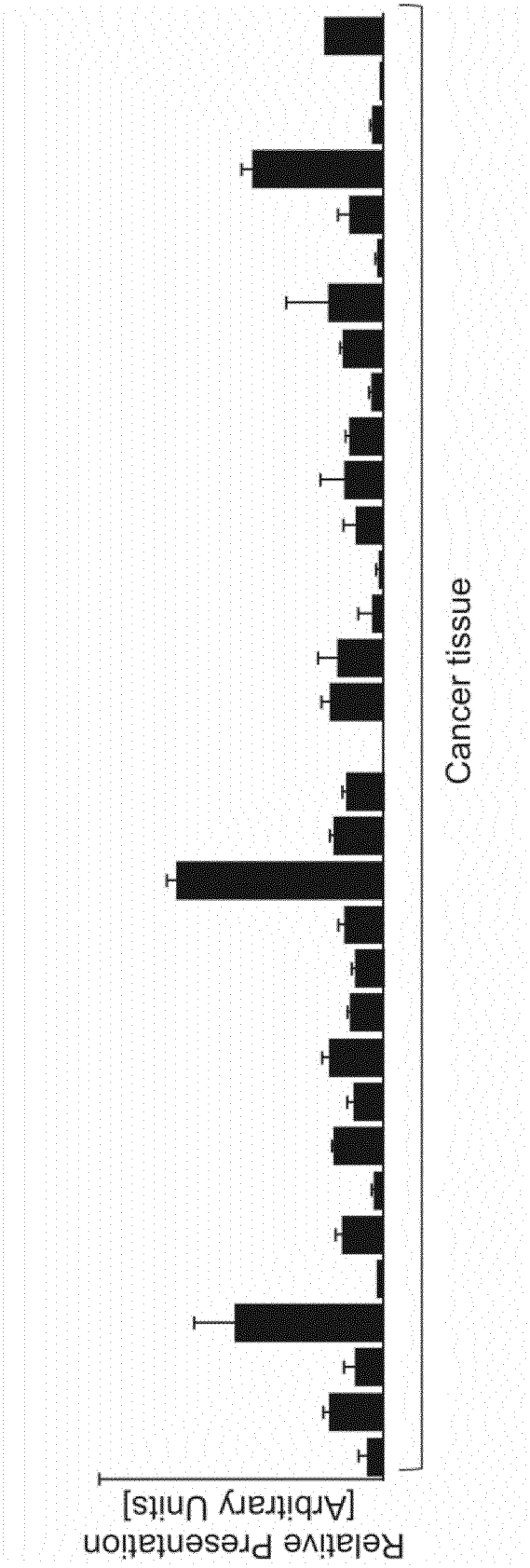
Peptide detected on
21 cancer tissues (3 brain cancers, 1 kidney cancer, 1 liver cancer, 14 lung cancers, 2 stomach cancers) (from left to right)

Figure 1Y
Peptide: VYNEQIRDLL (A*24)
SEQ ID NO: 354



Peptide detected on
13 cancer tissues (1 brain cancer, 11 lung cancers, 1 stomach cancer) (from left to right)

Figure 1Z
Peptide: VFSPDGHLF (A*24)
SEQ ID NO: 360



Peptide detected on
33 cancer tissues (4 liver cancers, 27 lung cancers, 1 prostate cancer, 1 stomach cancer) (from left to right)

Figure 2A
Gene: MXRA5
Peptide: LLWGHPRVA
SEQ ID NO: 78

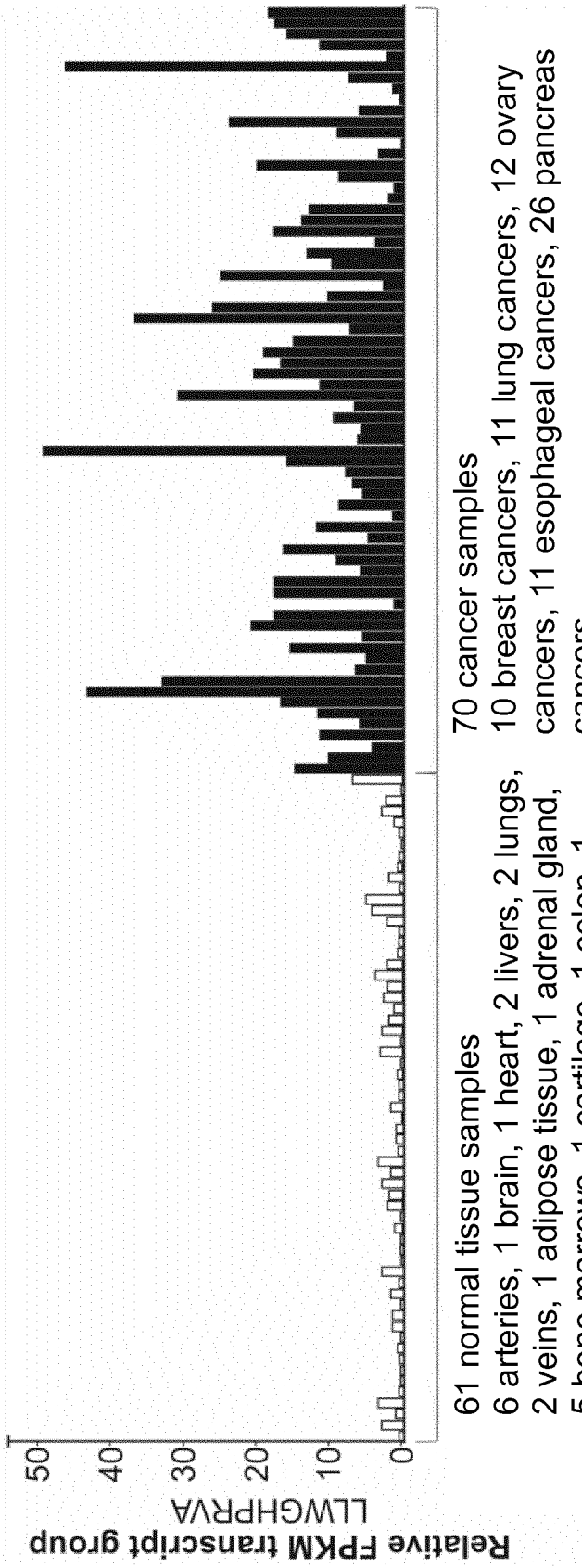


Figure 2B
Gene: KIF26B
Peptide: QYLDGTWSL
SEQ ID NO: 114

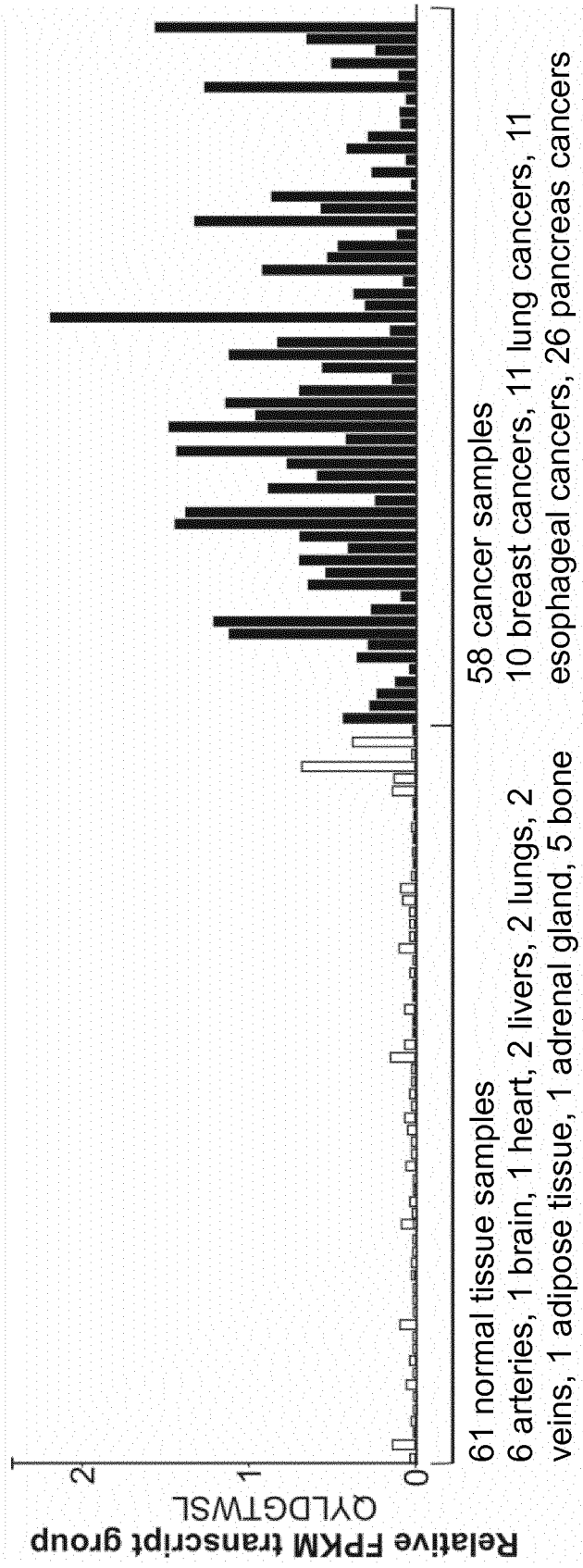


Figure 2C
Gene: IL4I1
Peptide: HYVPATKVF
SEQ ID NO: 164

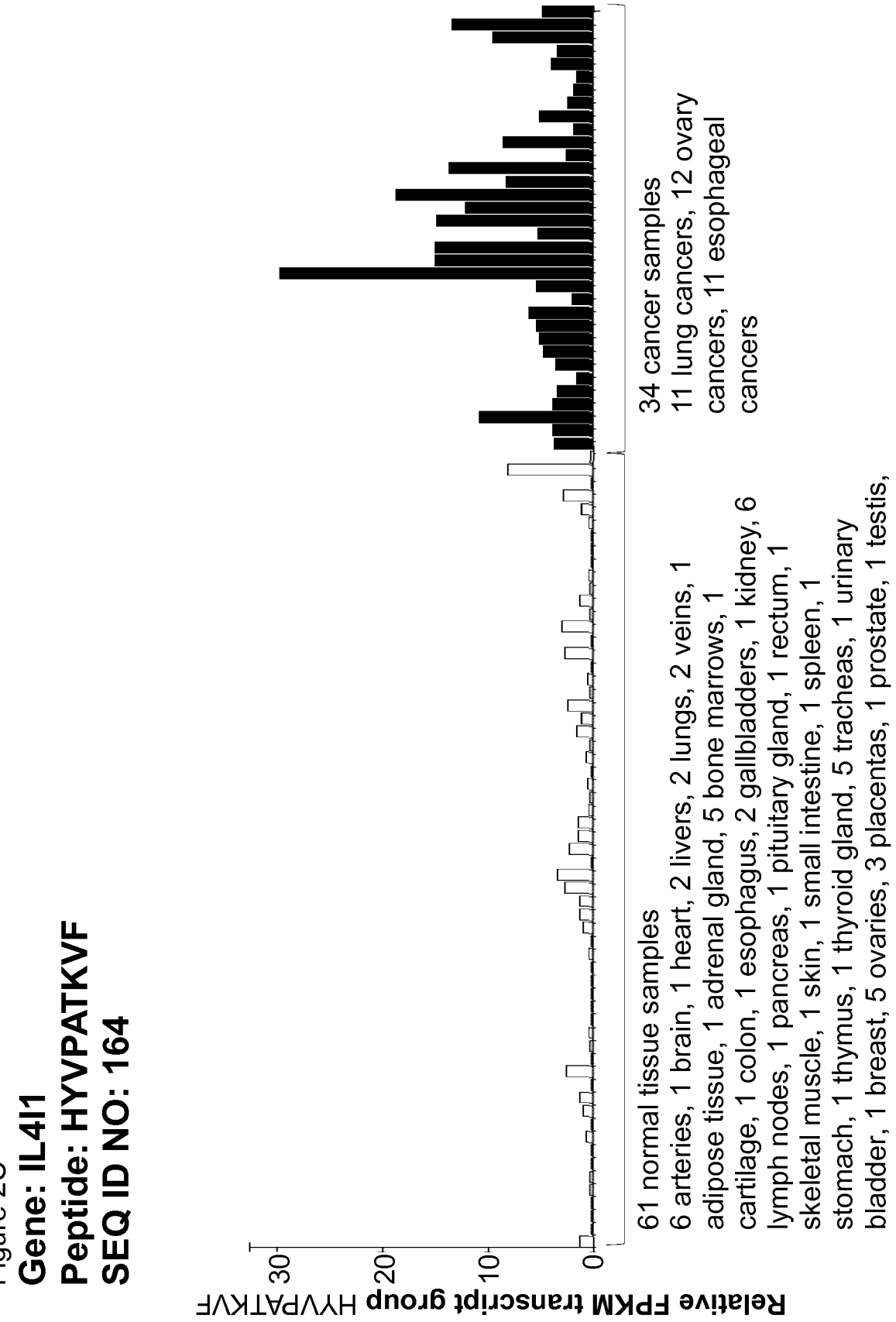


Figure 2D
Gene: TP63
Peptide: LYLENNAQTQF
SEQ ID NO: 193

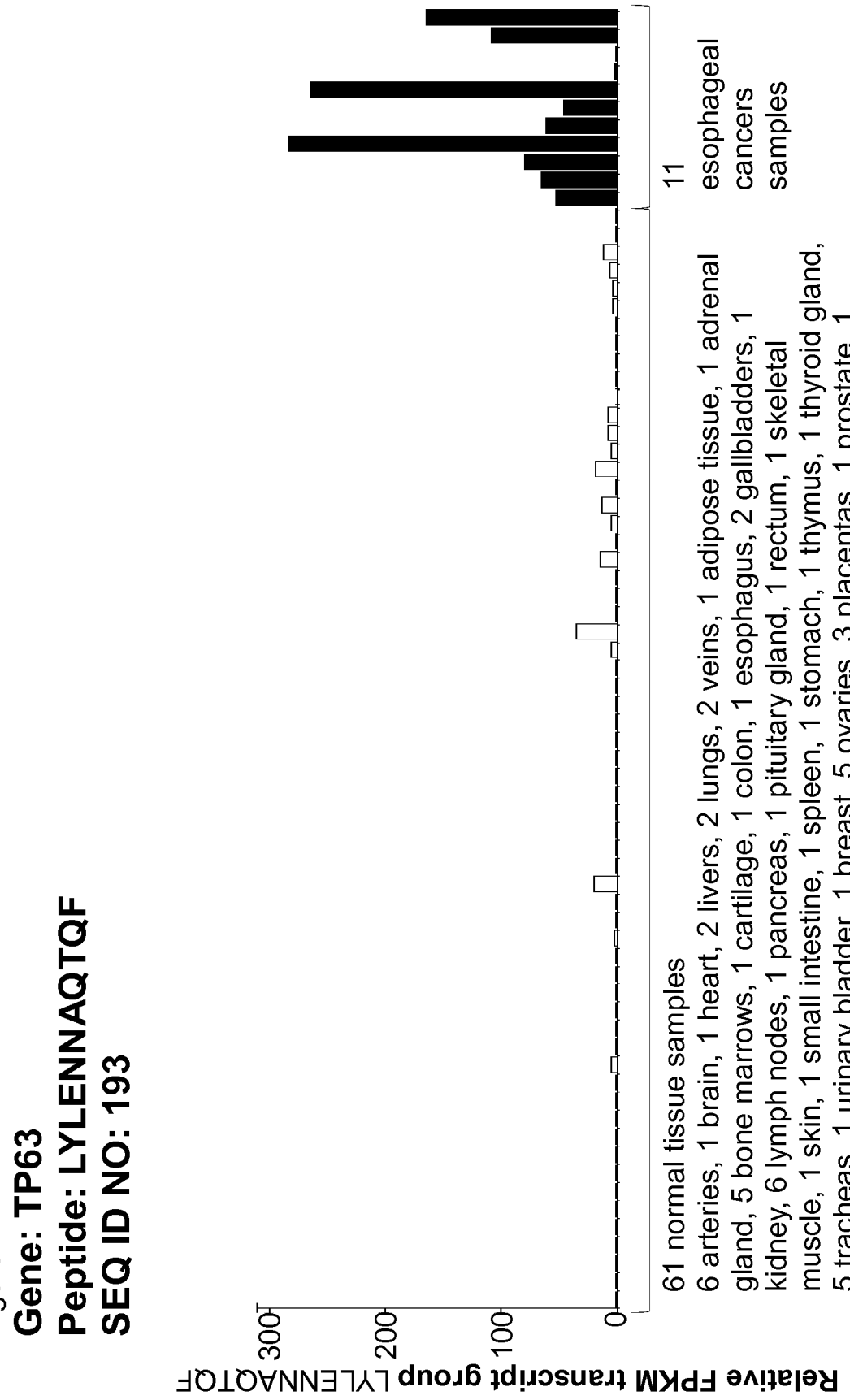


Figure 3

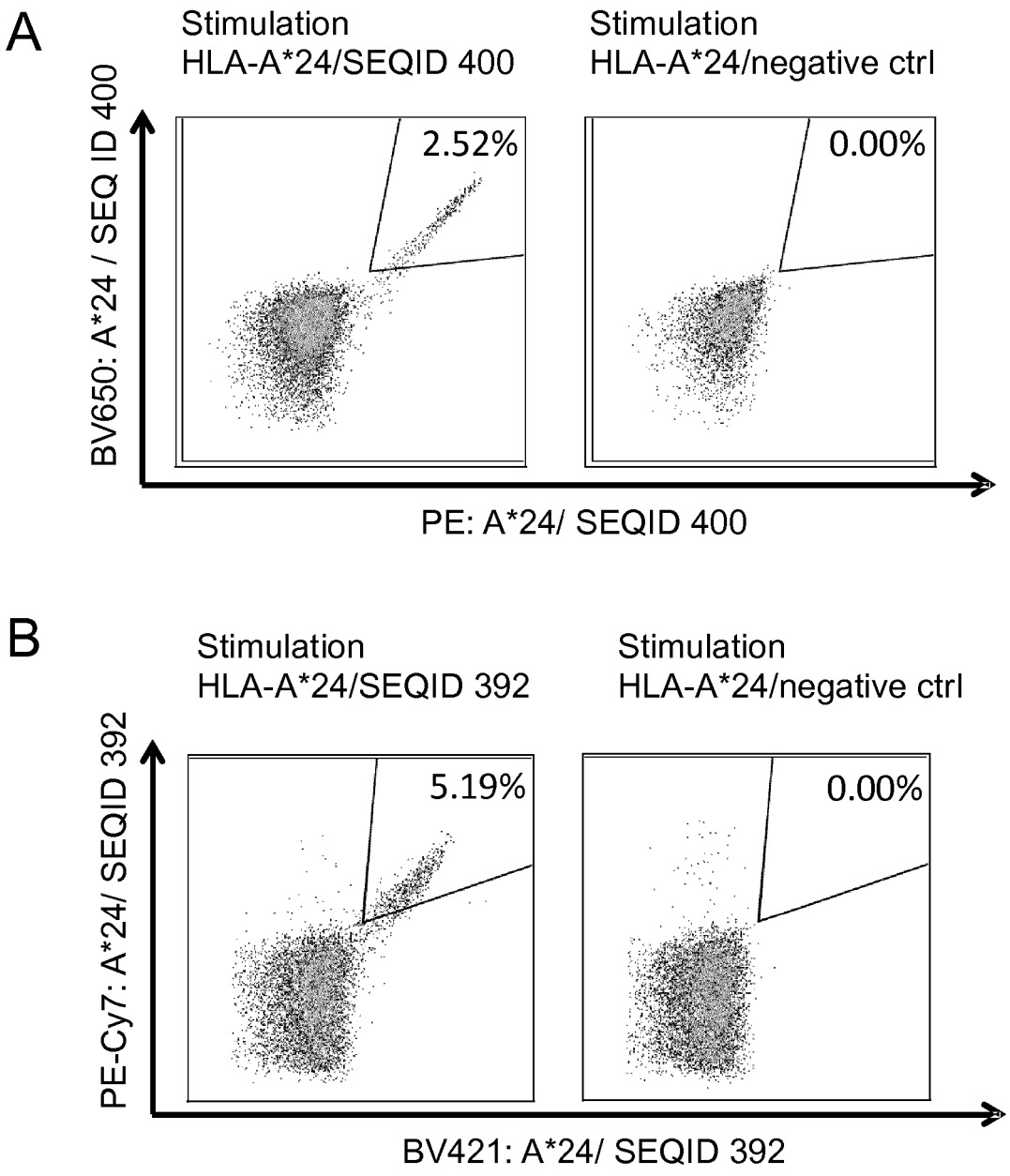

A
Stimulation
HLA-A*24/SEQID 400
Stimulation
HLA-A*24/negative ctrl
2.52%
0.00%
BV650: A*24 / SEQ ID 400
PE: A*24/ SEQID 400
B
Stimulation
HLA-A*24/SEQID 392
Stimulation
HLA-A*24/negative ctrl
5.19%
0.00%
PE-Cy7: A*24/ SEQID 392
BV421: A*24/ SEQID 392

Figure 4

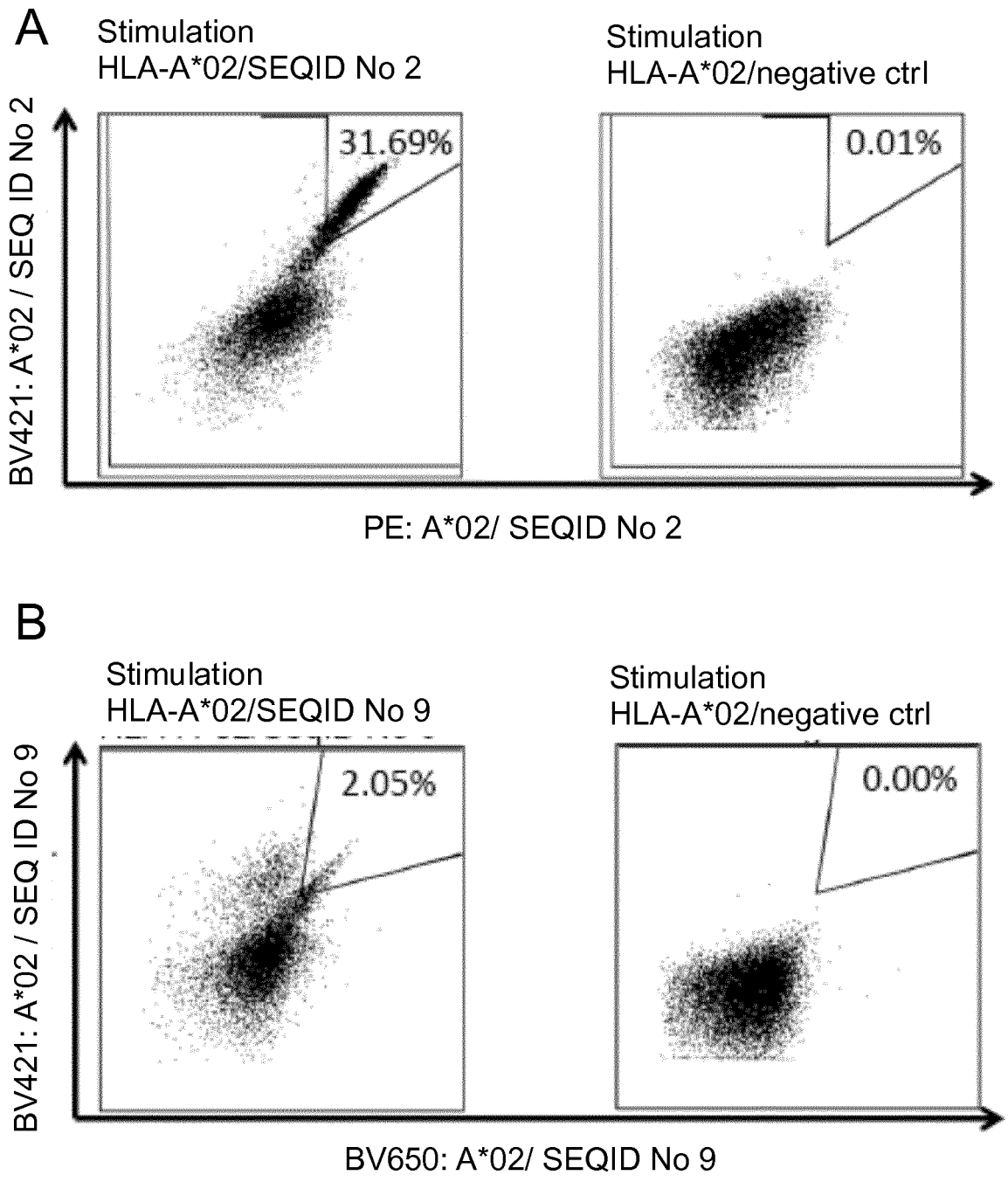

A
Stimulation
HLA-A*02/SEQID No 2
Stimulation
HLA-A*02/negative ctrl
31.69%
0.01%
BV421: A*02 / SEQ ID No 2
PE: A*02/ SEQID No 2
B
Stimulation
HLA-A*02/SEQID No 9
Stimulation
HLA-A*02/negative ctrl
2.05%
0.00%
BV421: A*02 / SEQ ID No 9
BV650: A*02/ SEQID No 9

Figure 4 (continued)

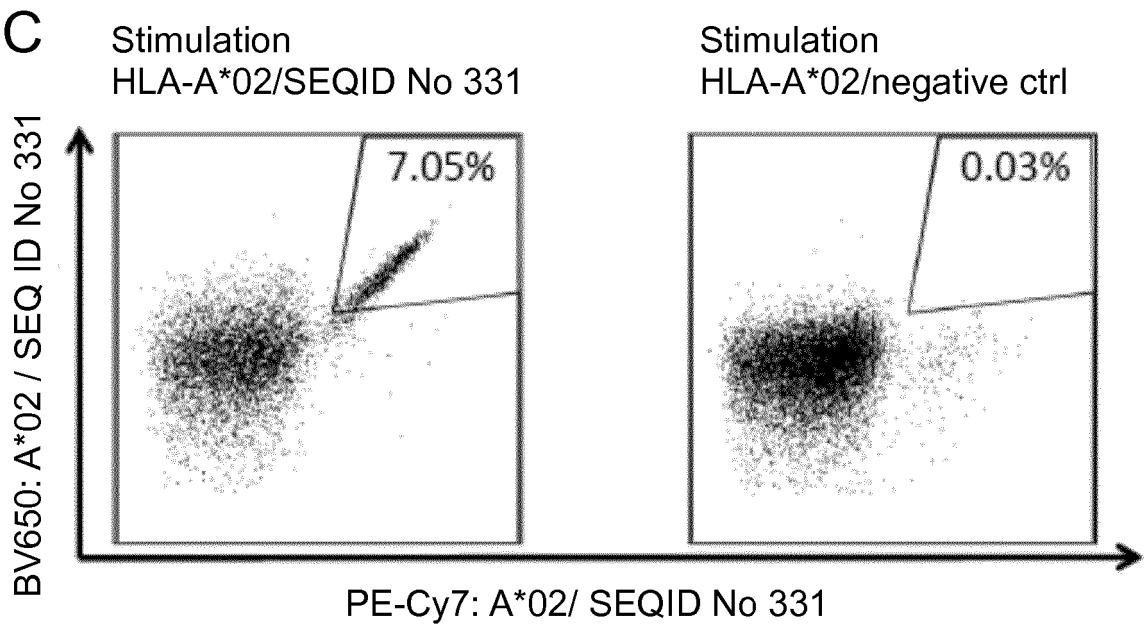
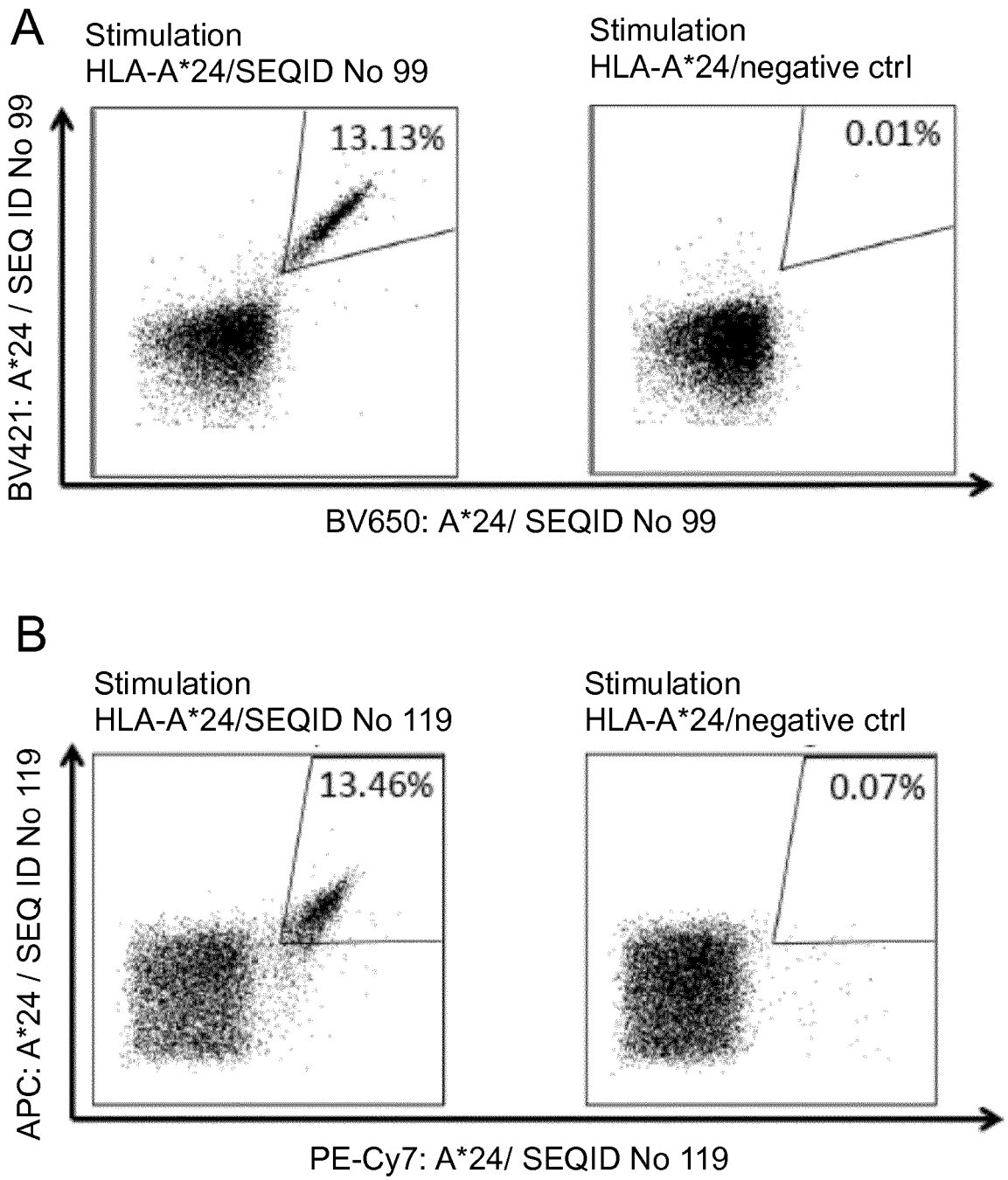


Figure 5


A
Stimulation
HLA-A*24/SEQID No 99
Stimulation
HLA-A*24/negative ctrl
13.13%
0.01%
BV421: A*24 / SEQ ID No 99
BV650: A*24/ SEQID No 99
B
Stimulation
HLA-A*24/SEQID No 119
Stimulation
HLA-A*24/negative ctrl
13.46%
0.07%
APC: A*24 / SEQ ID No 119
PE-Cy7: A*24/ SEQID No 119

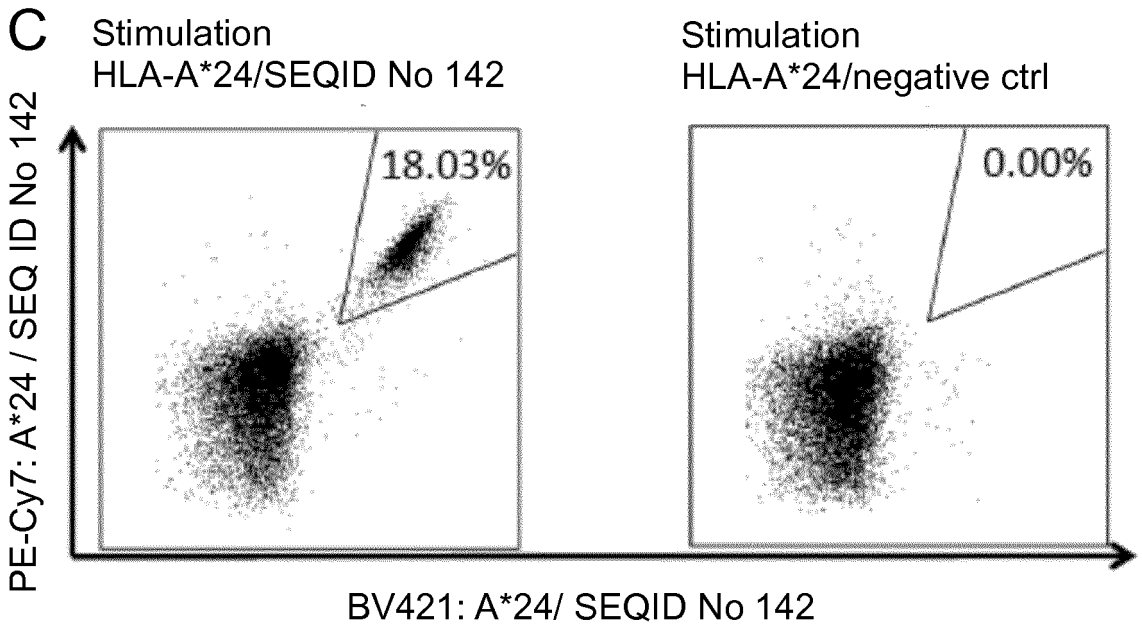
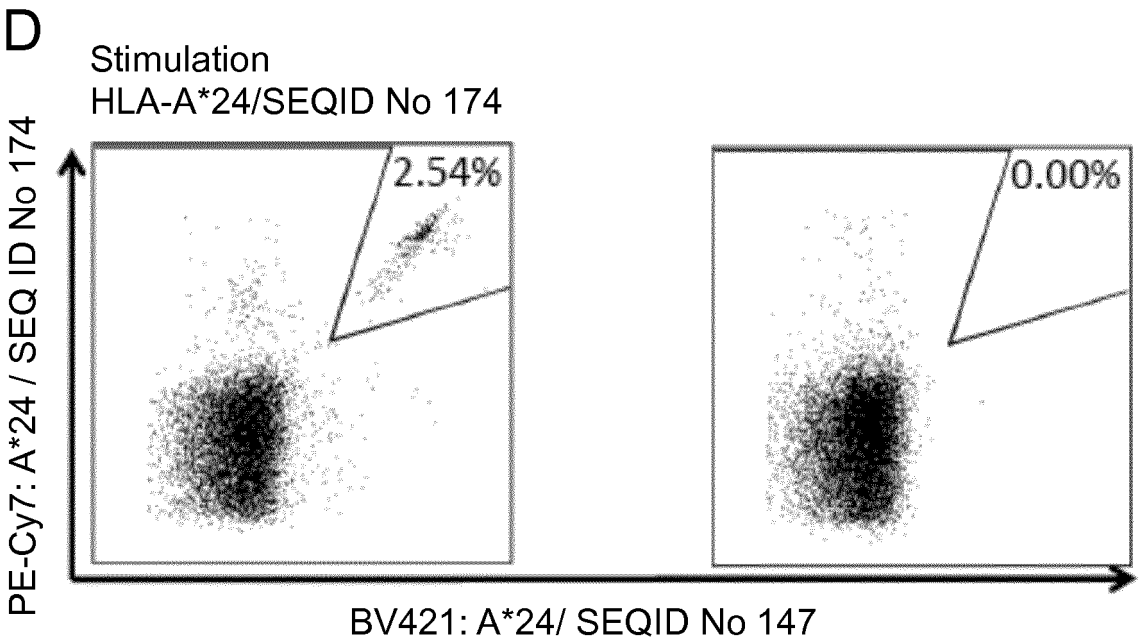



Figure 5 (continued)