Fig. 1

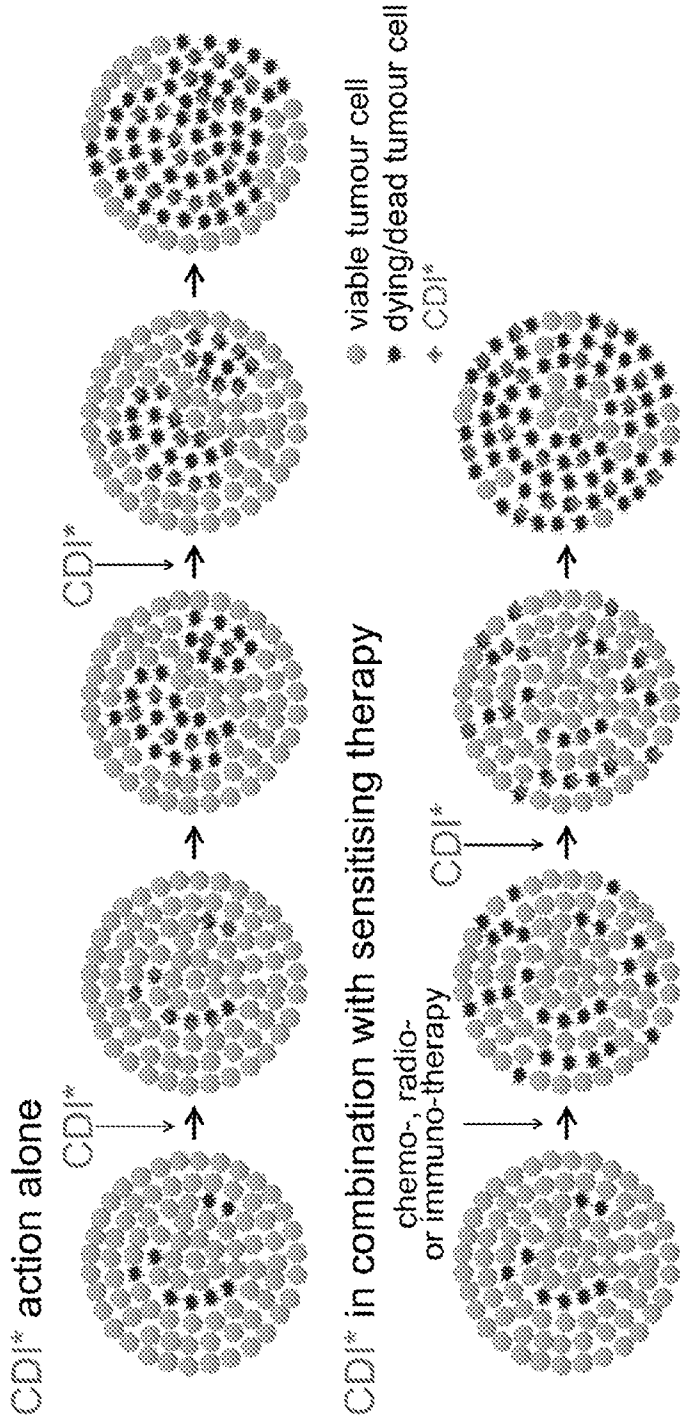

CDI* action alone
CDI*
CDI*
CDI* in combination with sensitising therapy
chemo-, radio-
or immuno-therapy
CDI*
viable tumour cell
dying/dead tumour cell
CDI*

Fig. 2

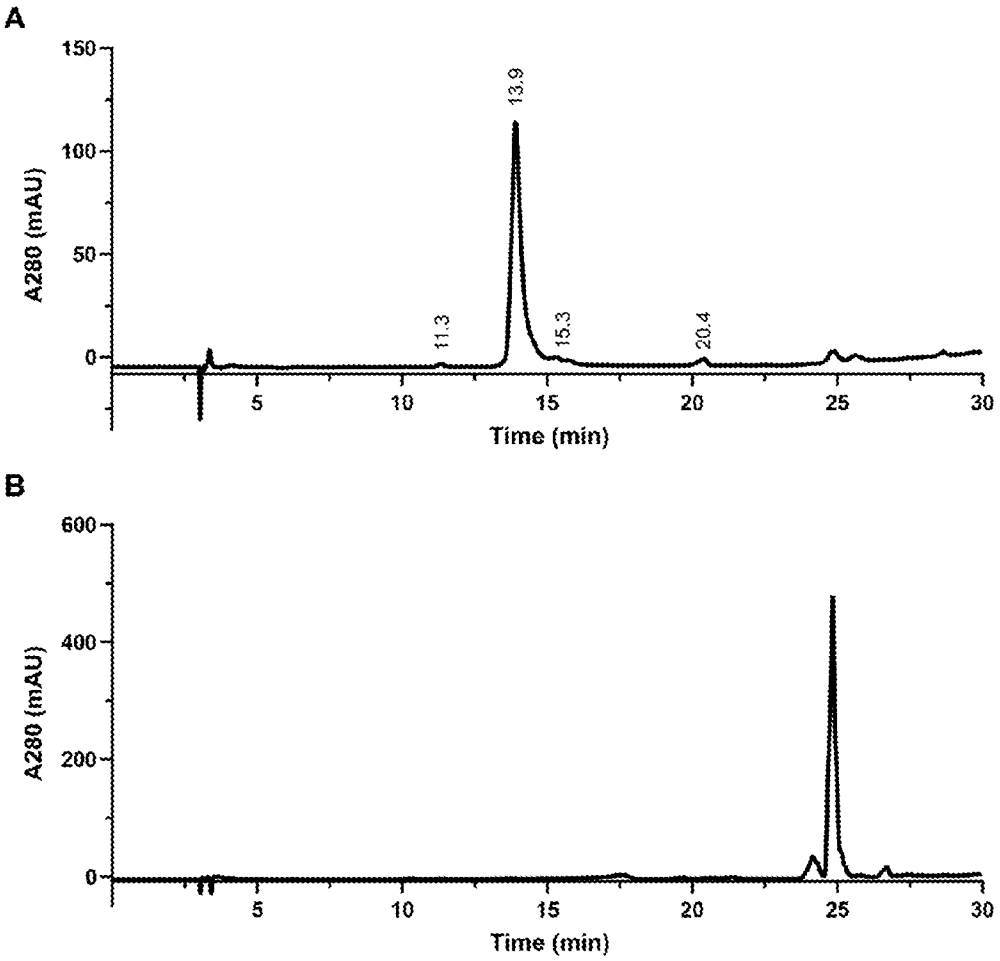

A
150
100
50
0
A280 (mAU)
13.9
11.3
15.3
20.4
5
10
15
20
25
30
Time (min)
B
600
400
200
0
A280 (mAU)
5
10
15
20
25
30
Time (min)

Fig. 3

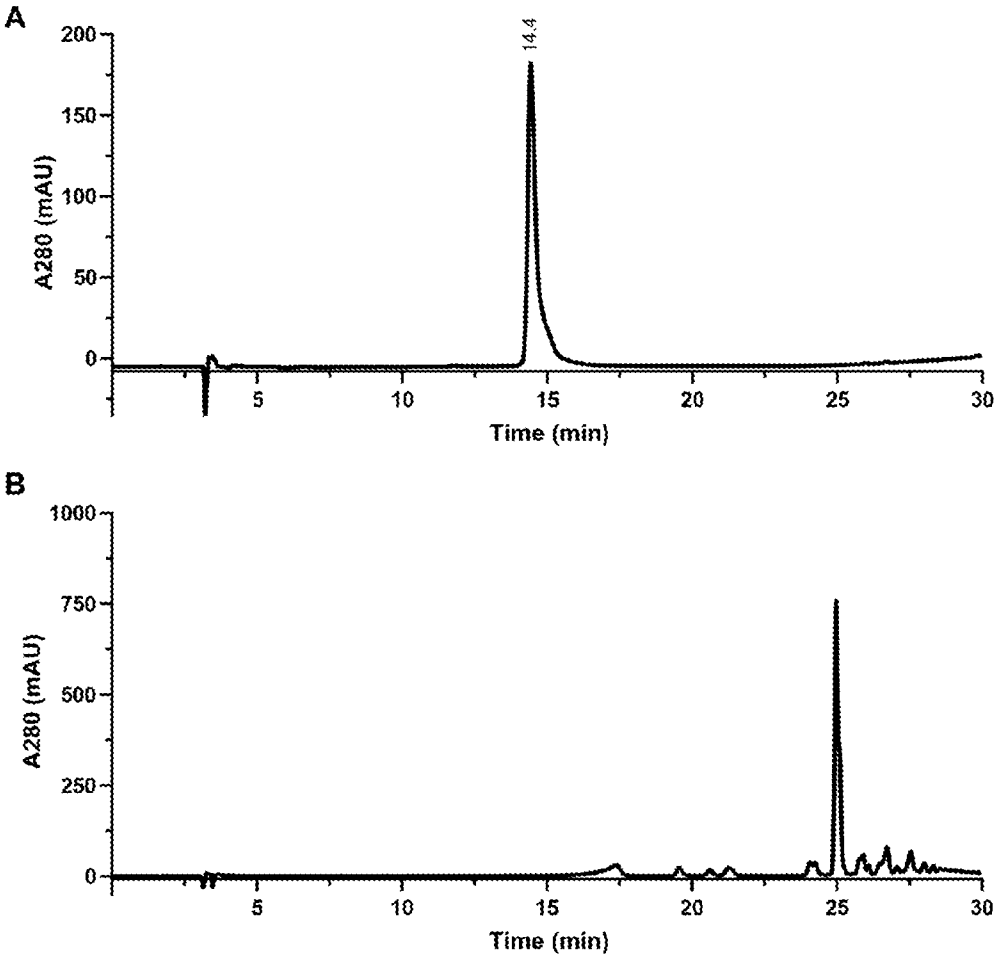

A
14.4
200
150
100
50
0
A280 (mAU)
5
10
15
20
25
30
Time (min)
B
1000
750
500
250
0
A280 (mAU)
5
10
15
20
25
30
Time (min)

Fig. 4

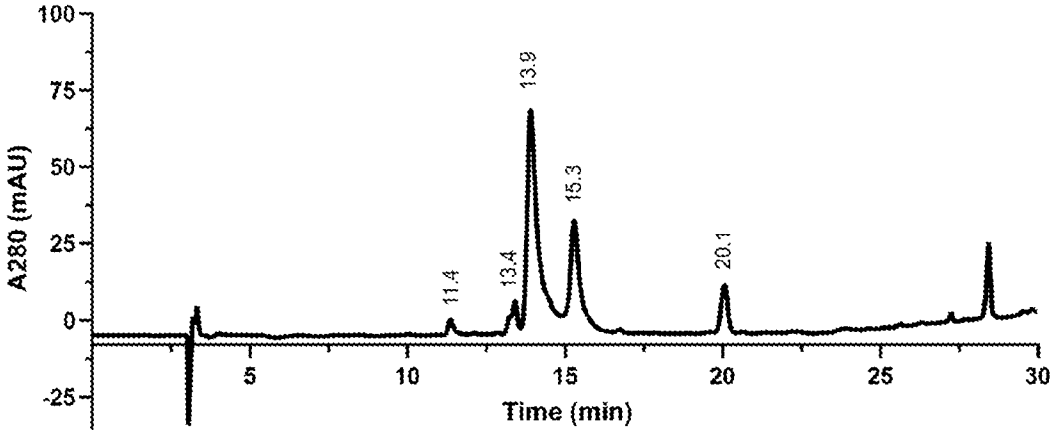

A280 (mAU)
100
75
50
25
0
-25
5
10
15
20
25
30
Time (min)
11.4
13.4
13.9
15.3
20.1

Fig. 5

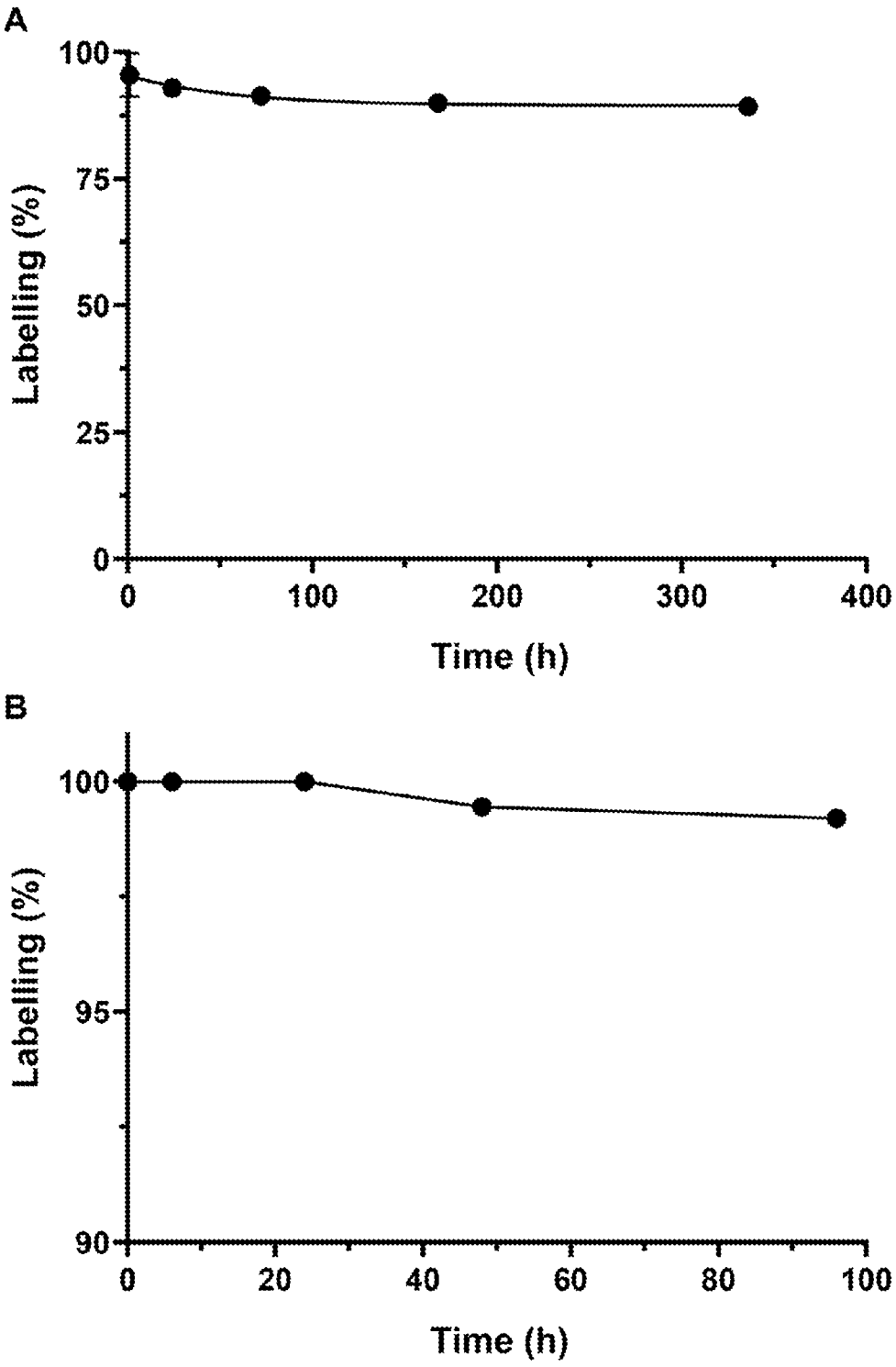

A
100
75
50
25
0
Labelling (%)
0
100
200
300
400
Time (h)
B
100
95
90
Labelling (%)
0
20
40
60
80
100
Time (h)

Fig. 6

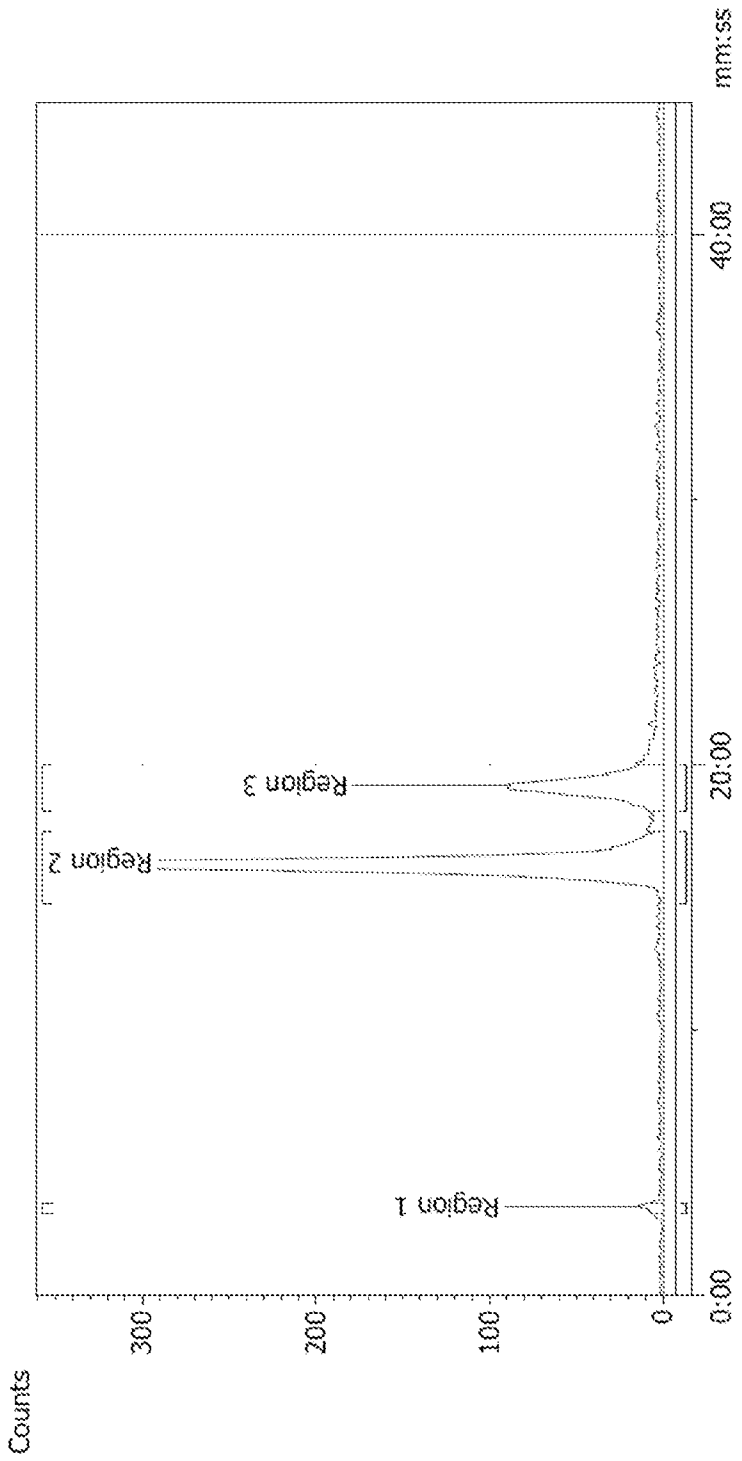

Counts
300
200
100
0
0:00
20:00
40:00
mm:ss
Region 1
Region 2
Region 3

Fig. 7

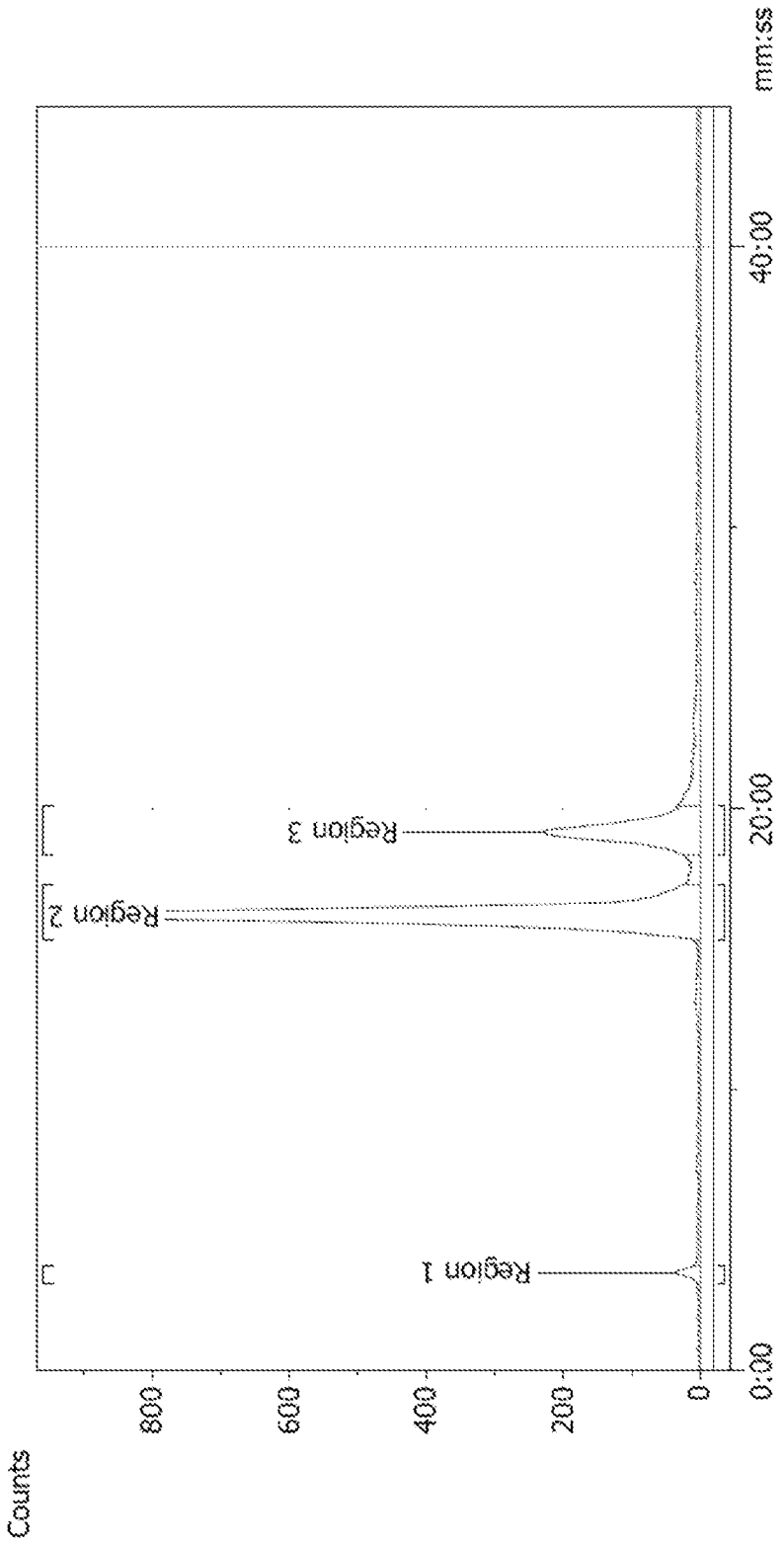

Counts
800
600
400
200
0
0:00
20:00
40:00
mm:ss
Region 1
Region 2
Region 3

Fig. 8

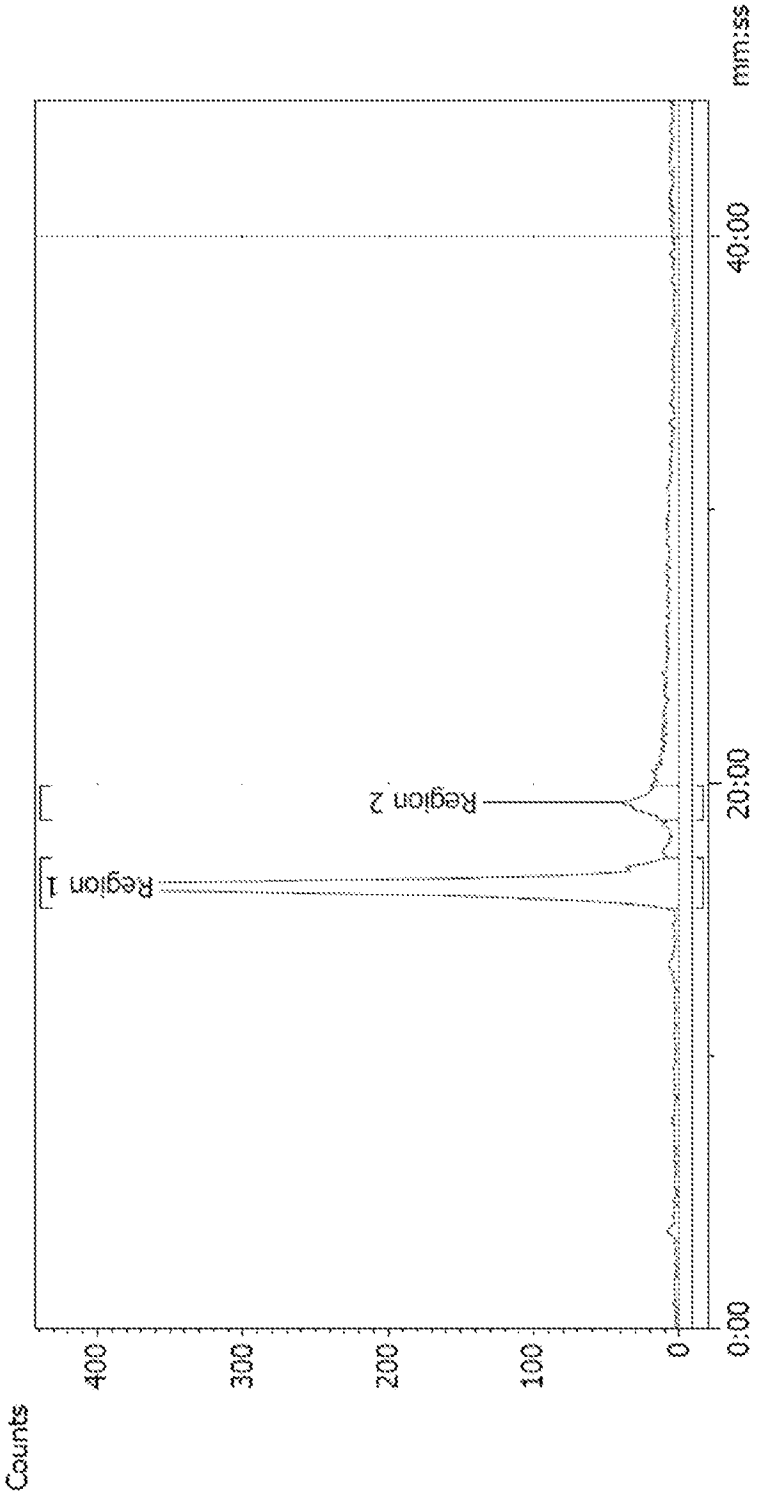


Fig. 9

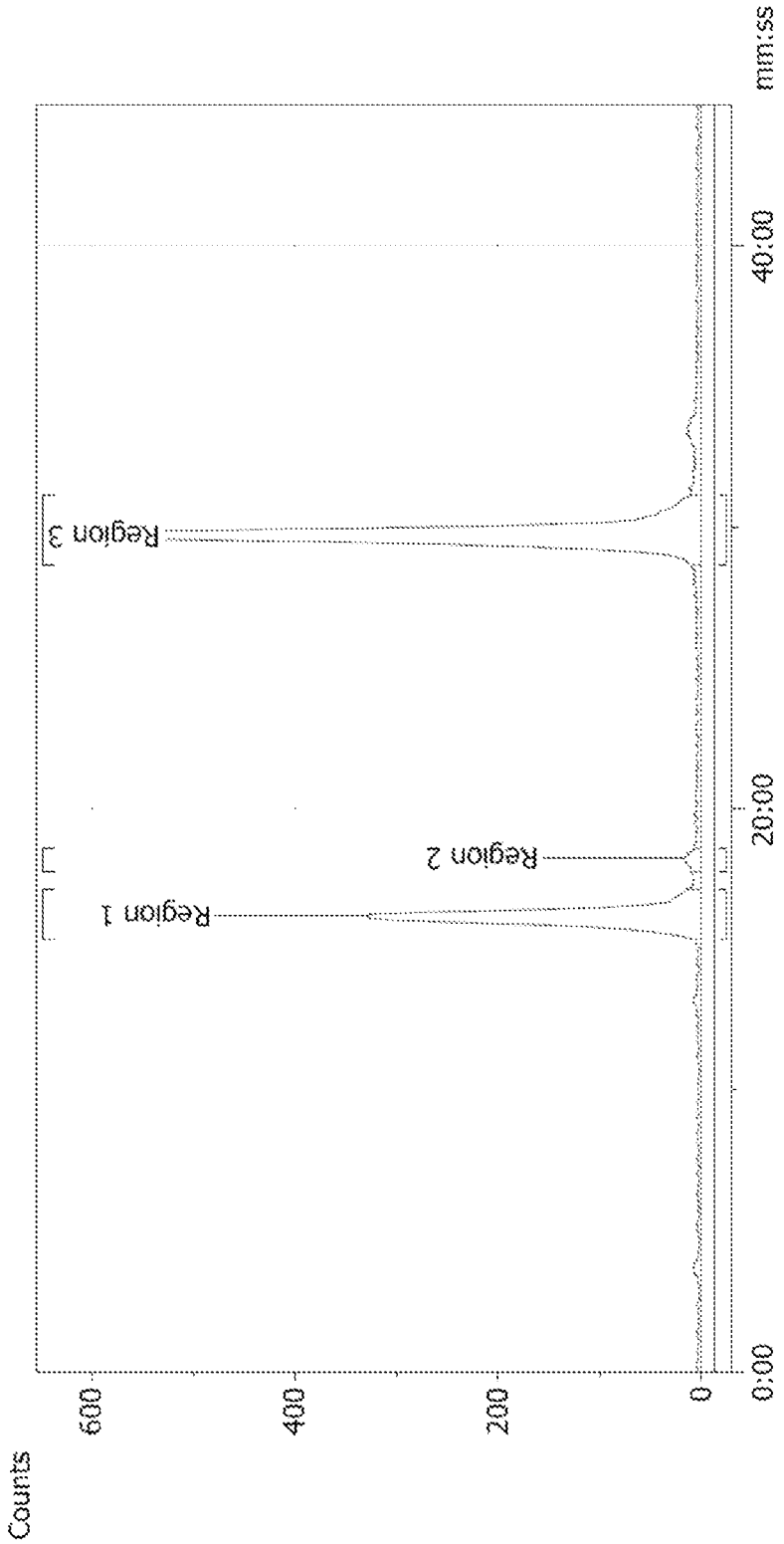

Counts
600
400
200
0
0:00
20:00
40:00
mm:ss
Region 1
Region 2
Region 3

Fig. 10

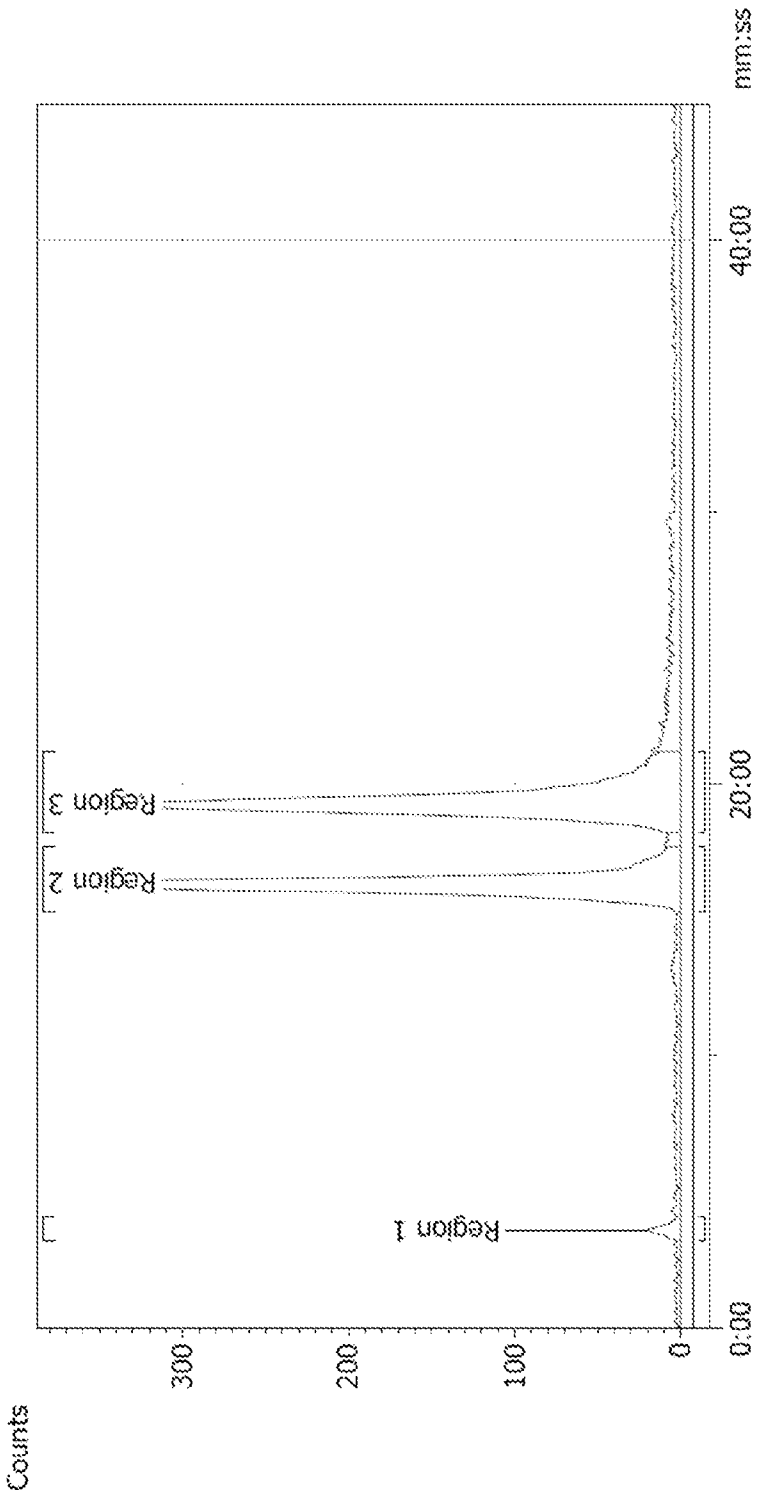

Counts
300
200
100
0
0:00
20:00
40:00
mm:ss
Region 1
Region 2
Region 3

Fig. 11

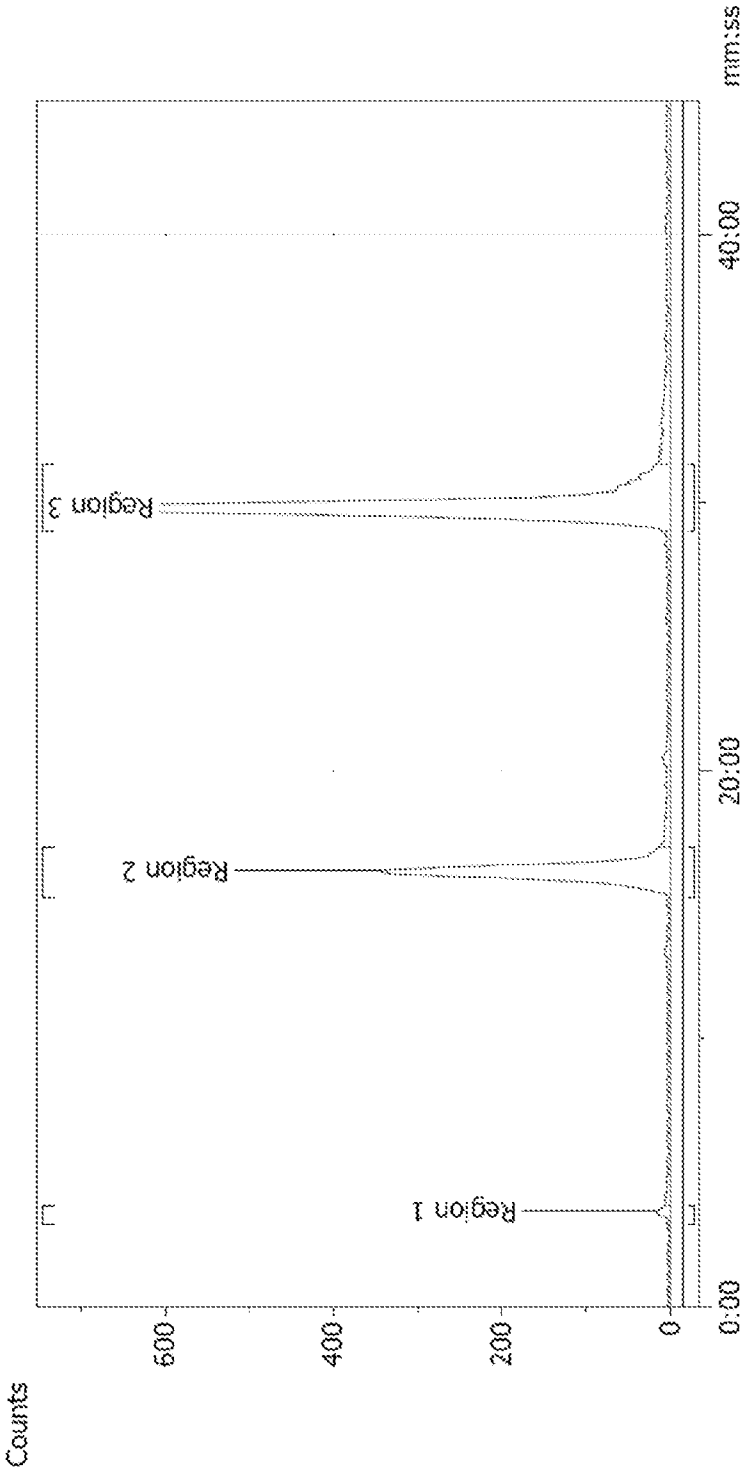

Counts
600
400
200
0
0:00
20:00
40:00
mm:ss
Region 1
Region 2
Region 3

Fig. 12

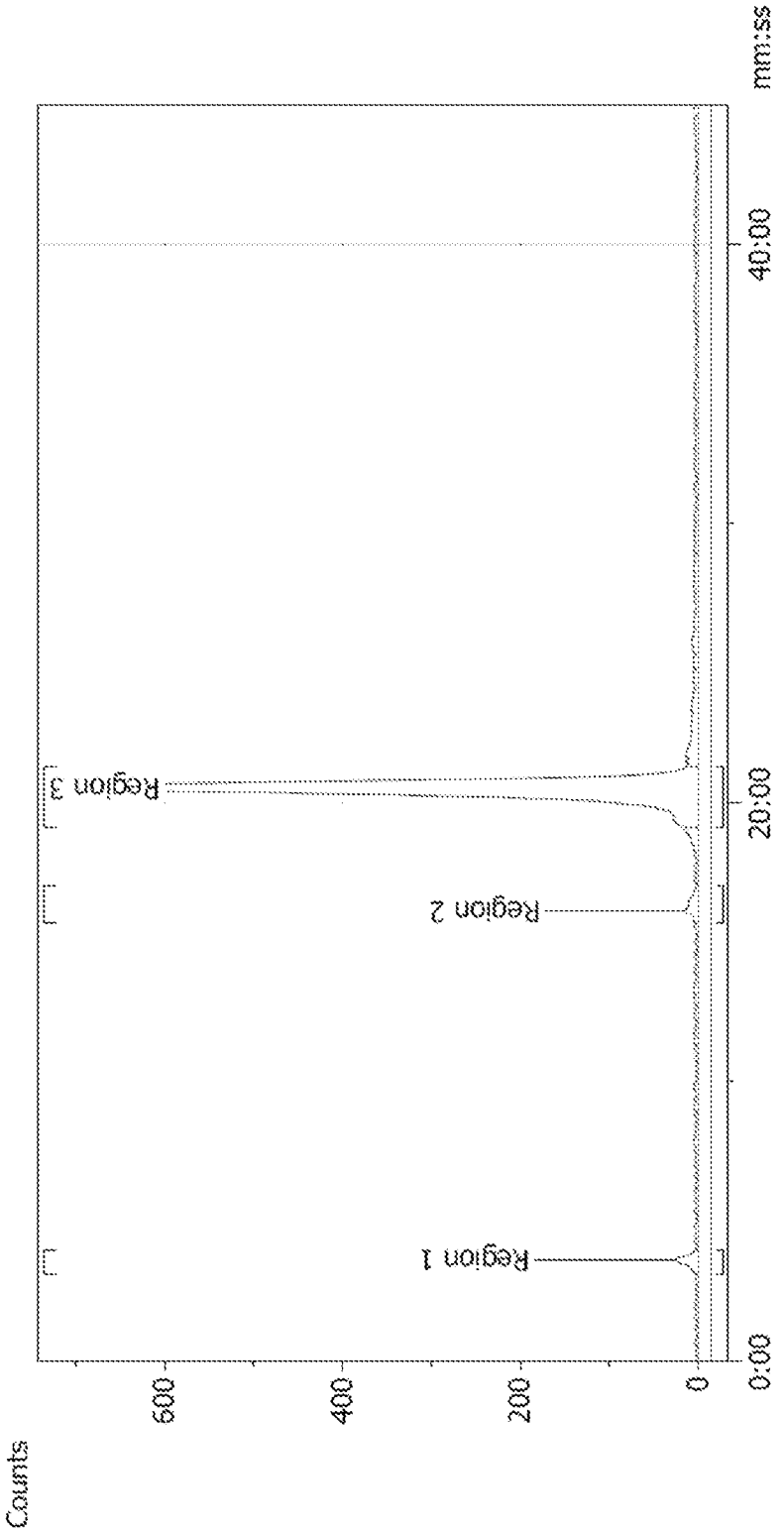

Counts
600
400
200
0
0:00
20:00
40:00
mm:ss
Region 1
Region 2
Region 3

Fig. 13

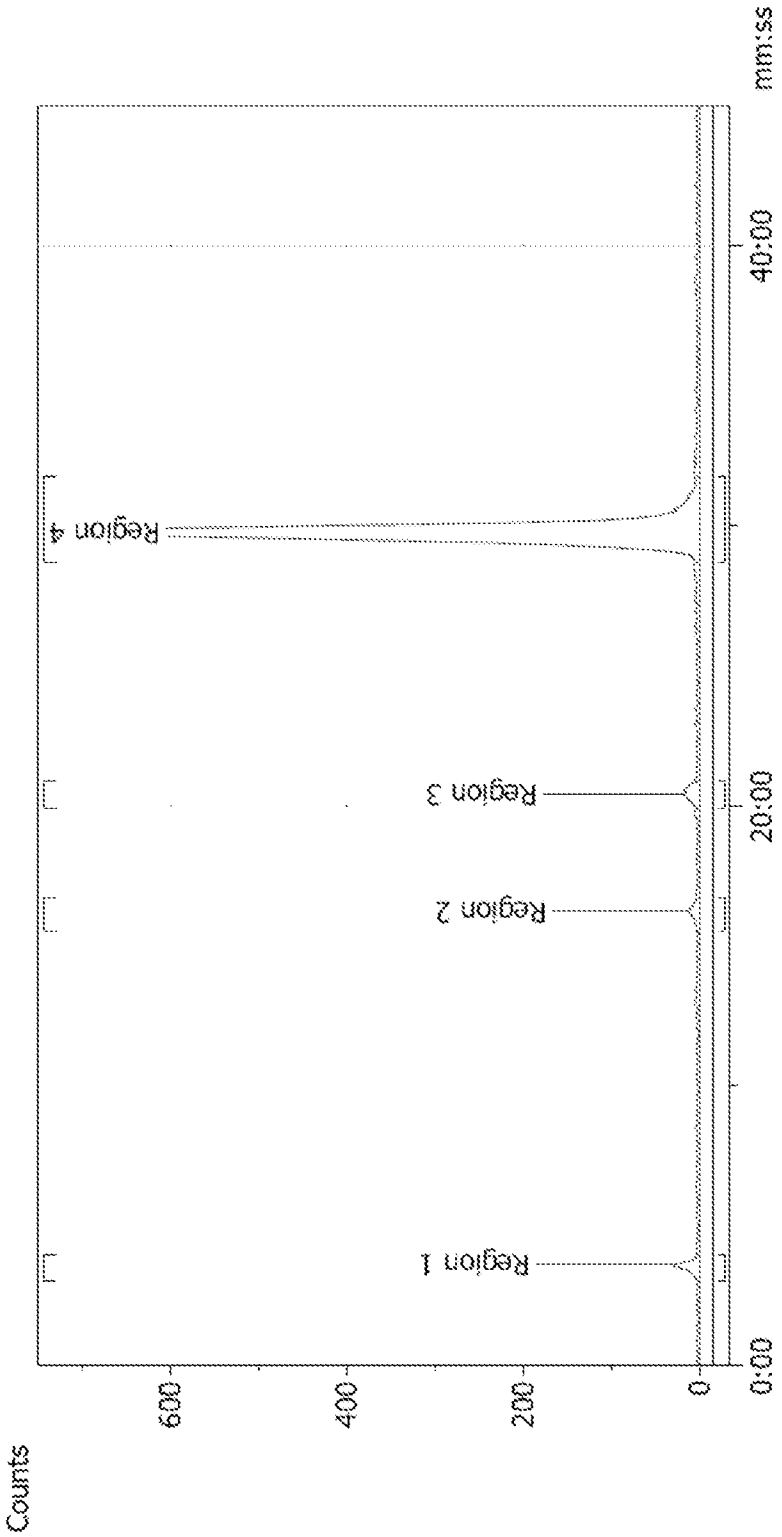

Counts
600
400
200
0
0:00
20:00
40:00
mm:ss
Region 1
Region 2
Region 3
Region 4

Fig. 14

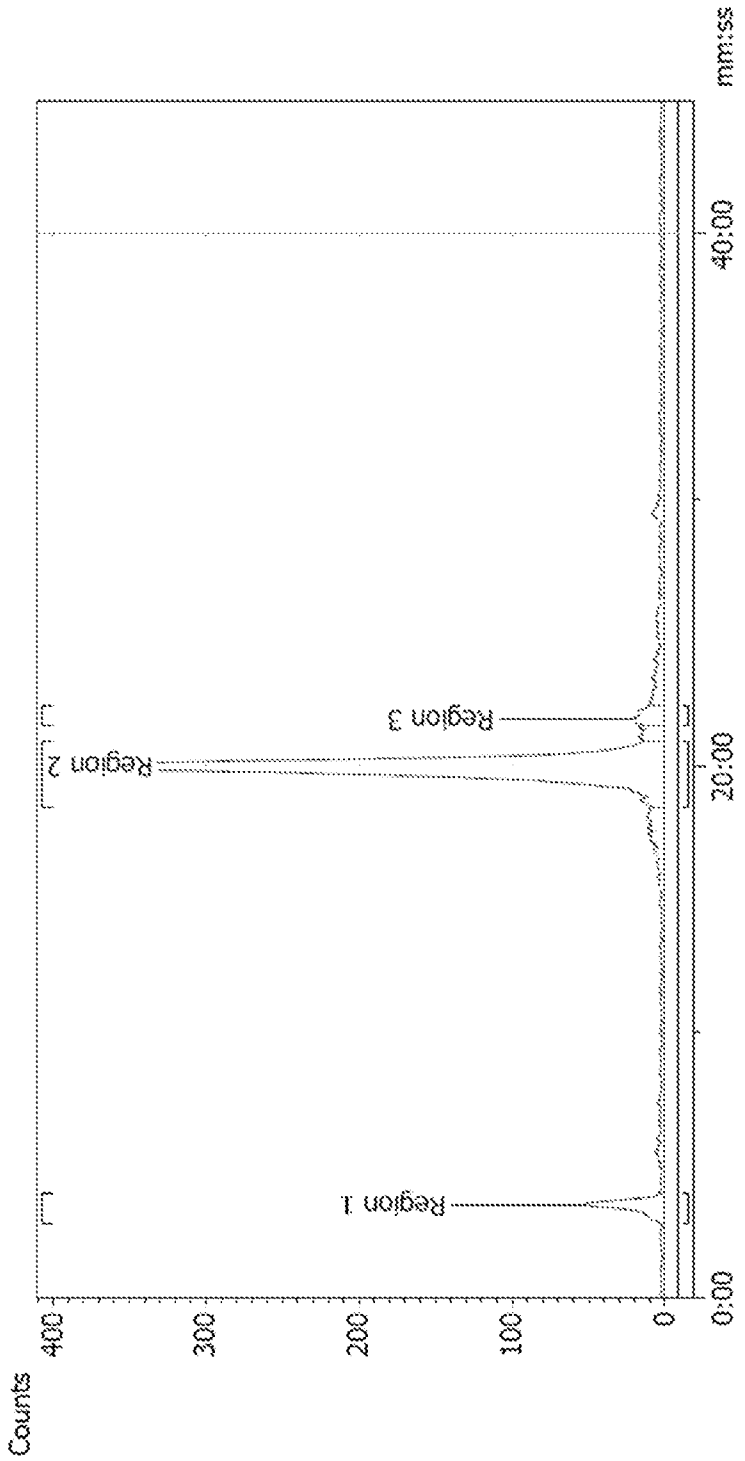

Counts
400
300
200
100
0
0:00
20:00
40:00
mm:ss
Region 1
Region 2
Region 3

Fig. 15

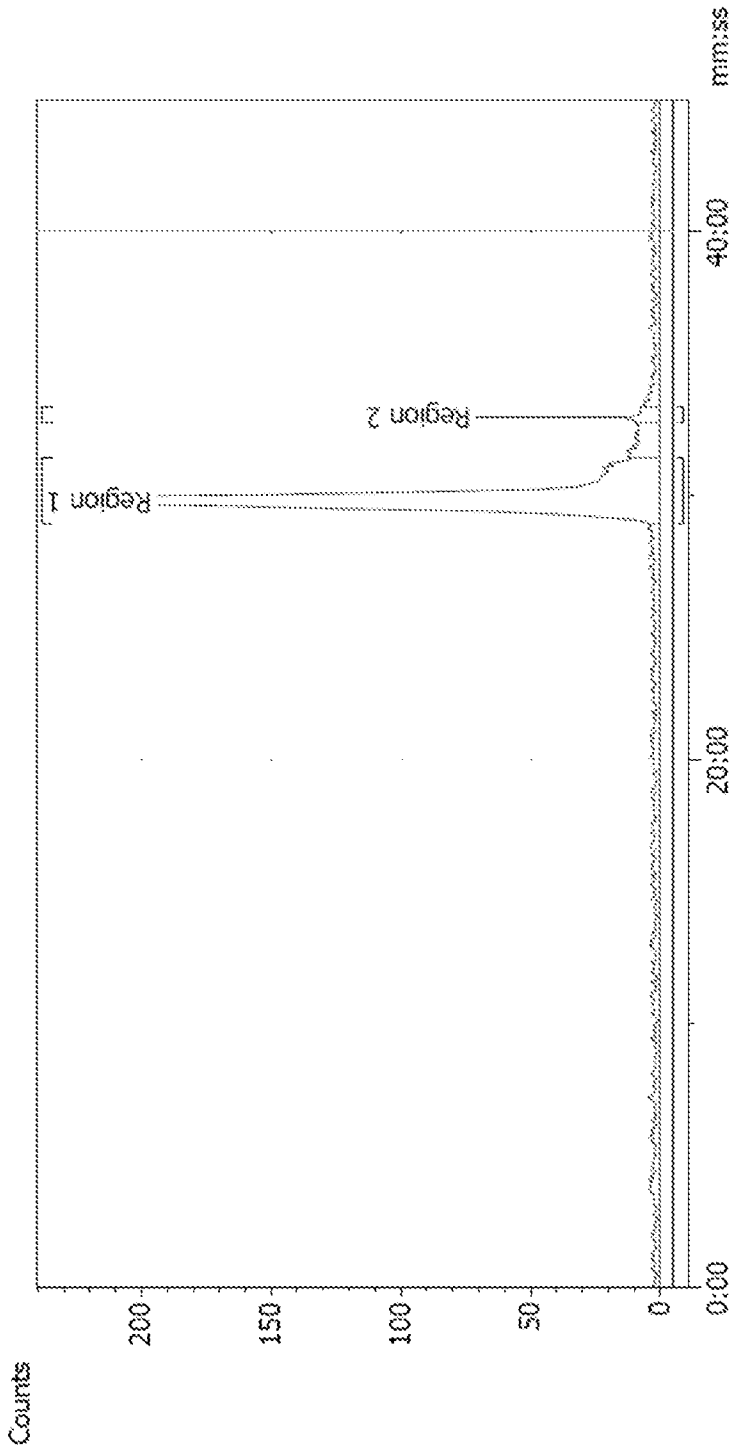


Fig. 16

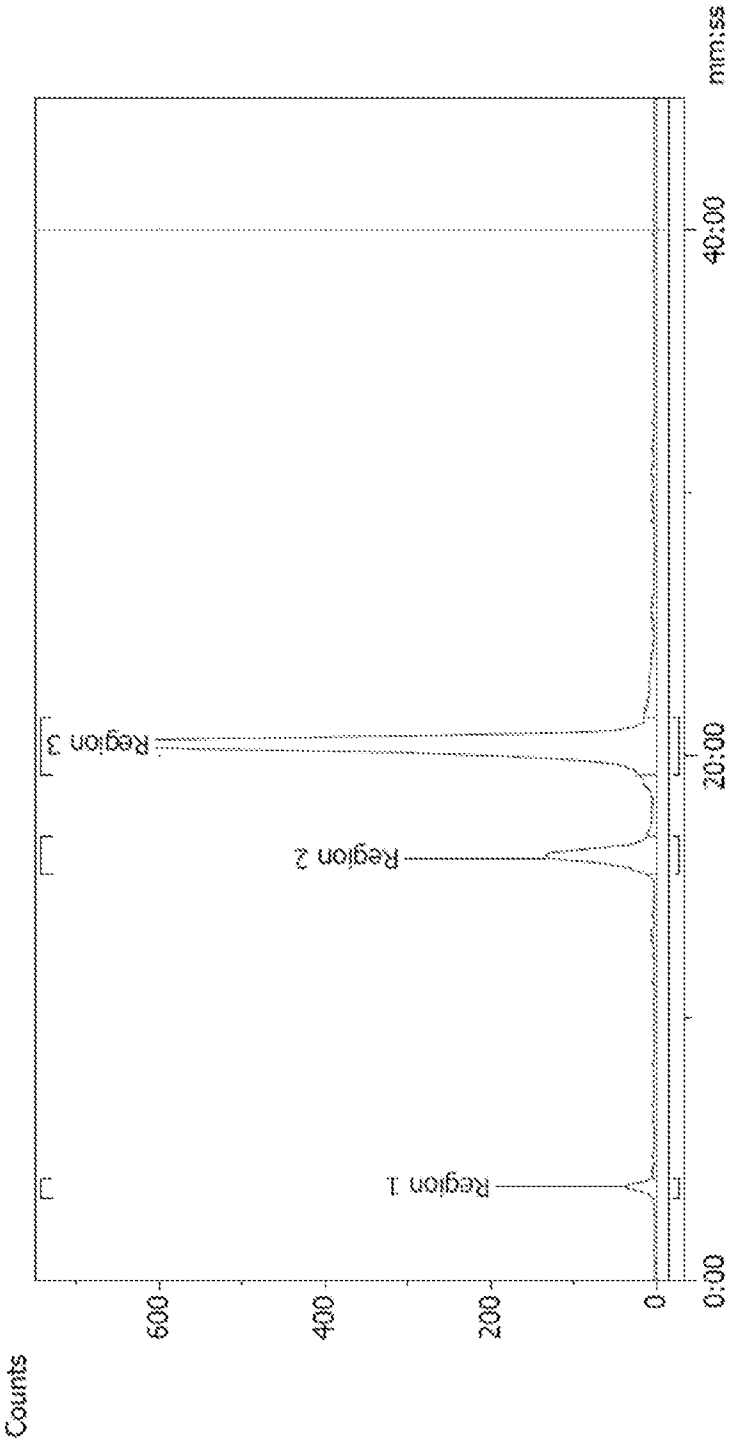

Counts
600
400
200
0
0:00
20:00
40:00
mm:ss
Region 1
Region 2
Region 3

Fig. 17

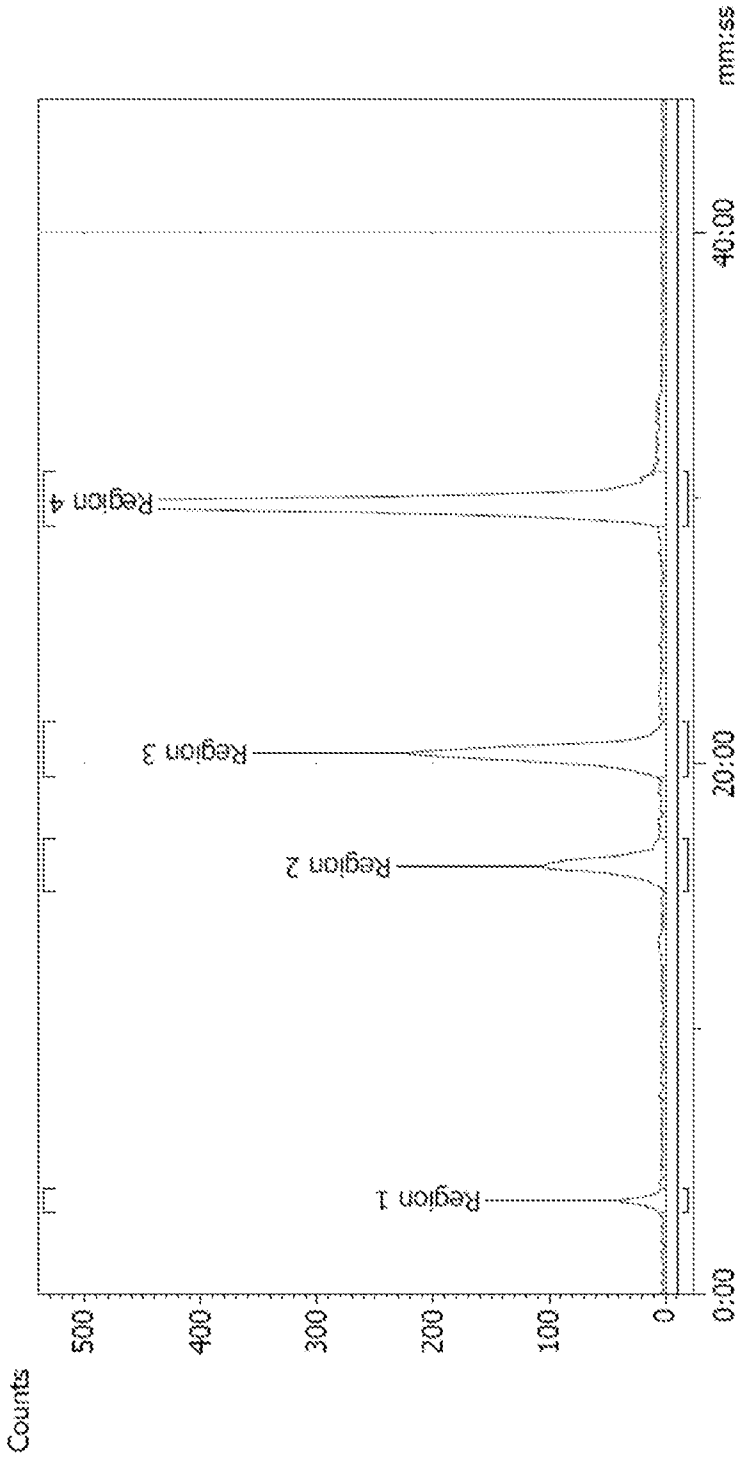

Counts
500
400
300
200
100
0
0:00
20:00
40:00
mm:ss
Region 1
Region 2
Region 3
Region 4

Fig. 18

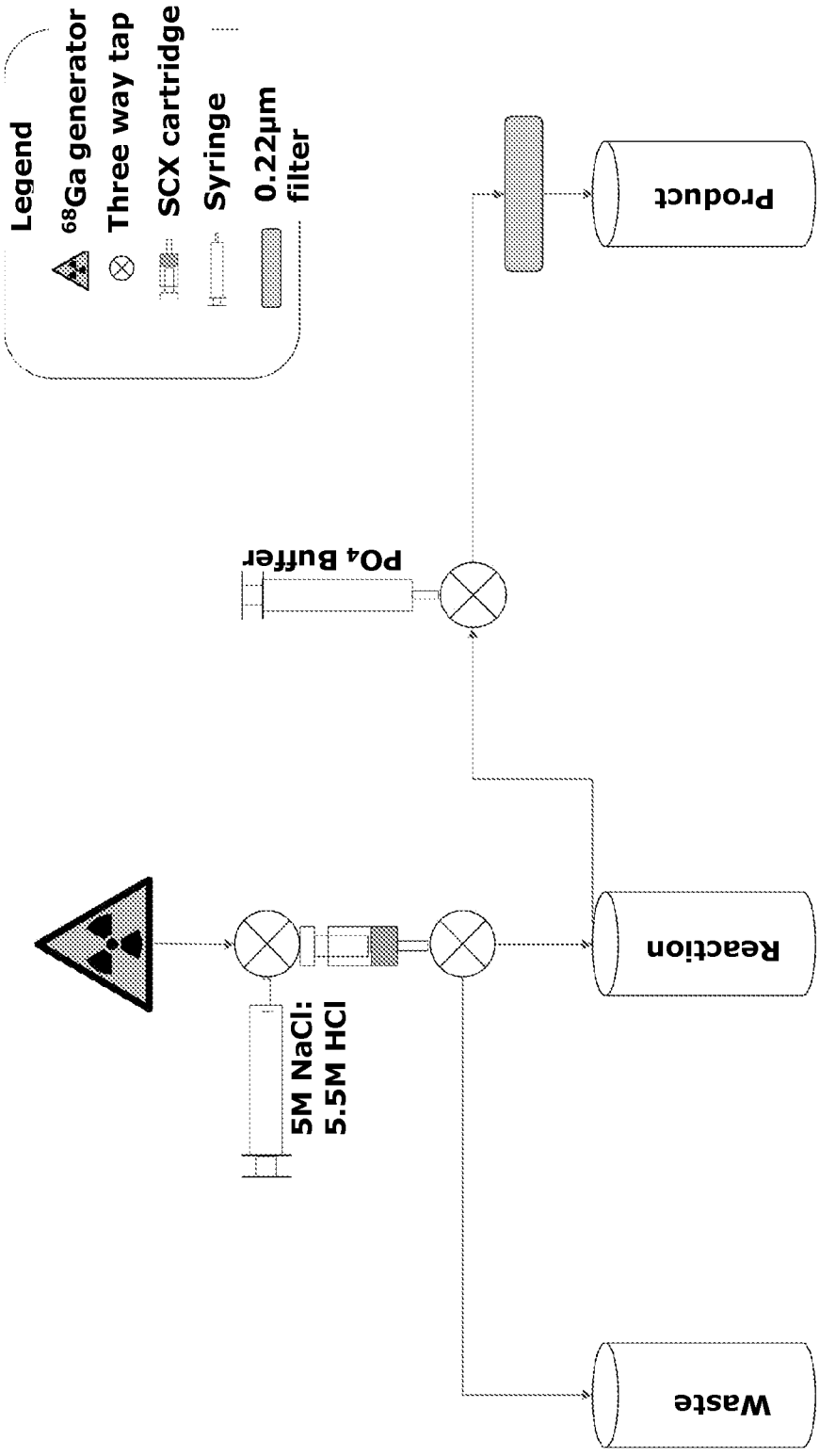

Legend
^{68}Ga generator
Three way tap
SCX cartridge
Syringe
0.22µm filter
Product
PO$_4$ Buffer
Reaction
5M NaCl:
5.5M HCl
Waste

Fig. 19

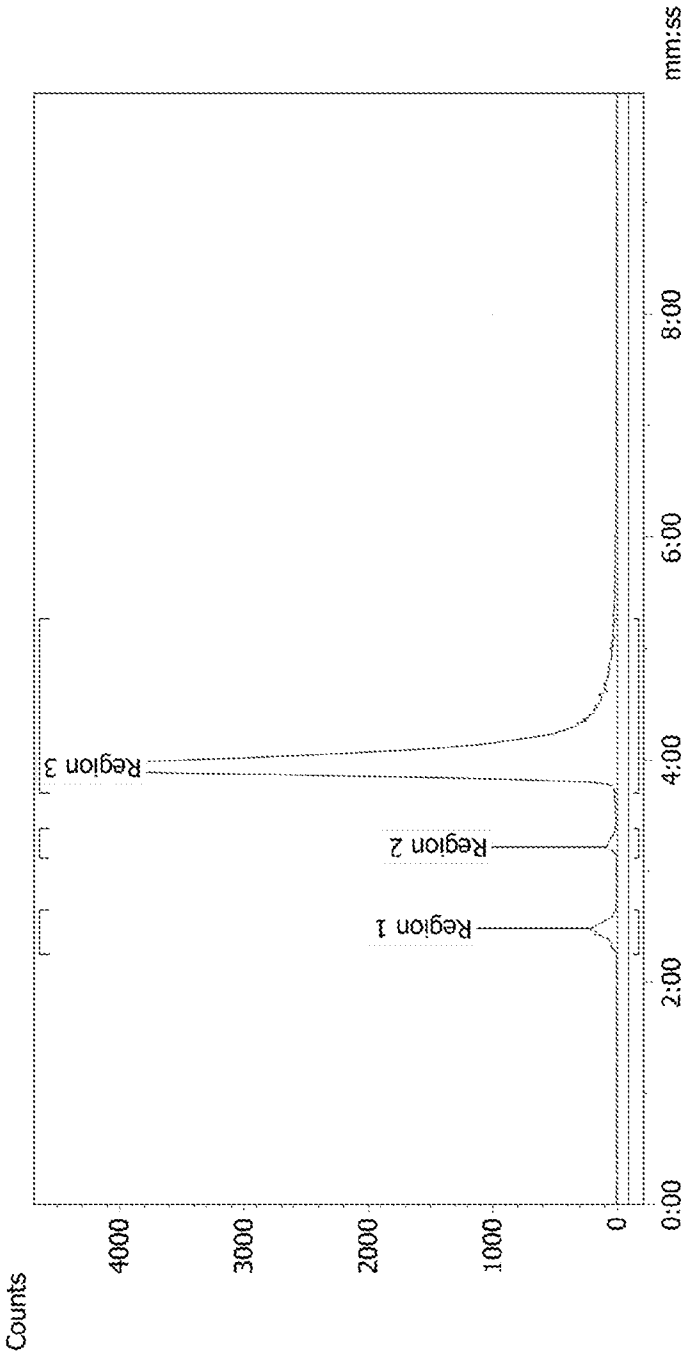

Counts
4000
3000
2000
1000
0
0:00
2:00
4:00
6:00
8:00
mm:ss
Region 1
Region 2
Region 3

Fig. 20

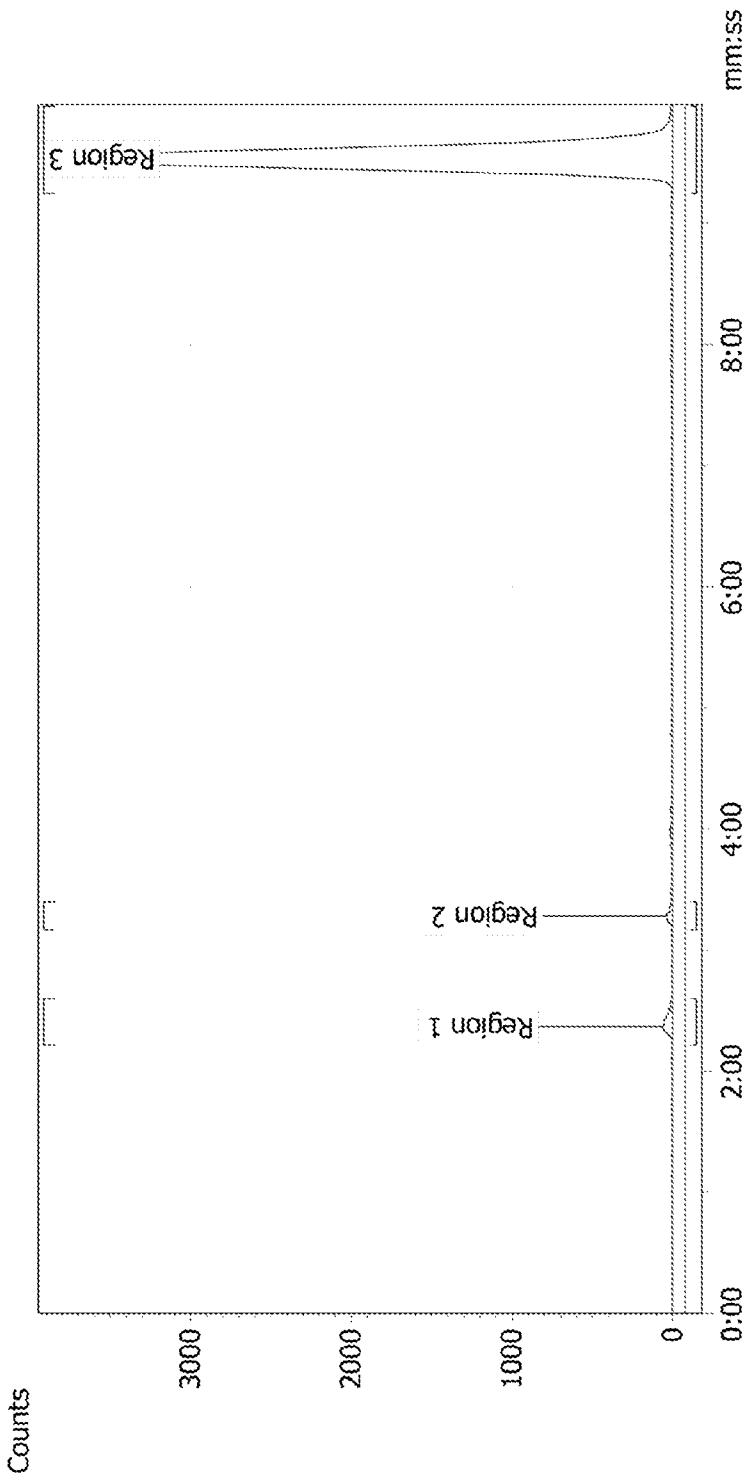

Counts
3000
2000
1000
0
0:00
2:00
4:00
6:00
8:00
mm:ss
Region 1
Region 2
Region 3

Fig. 21

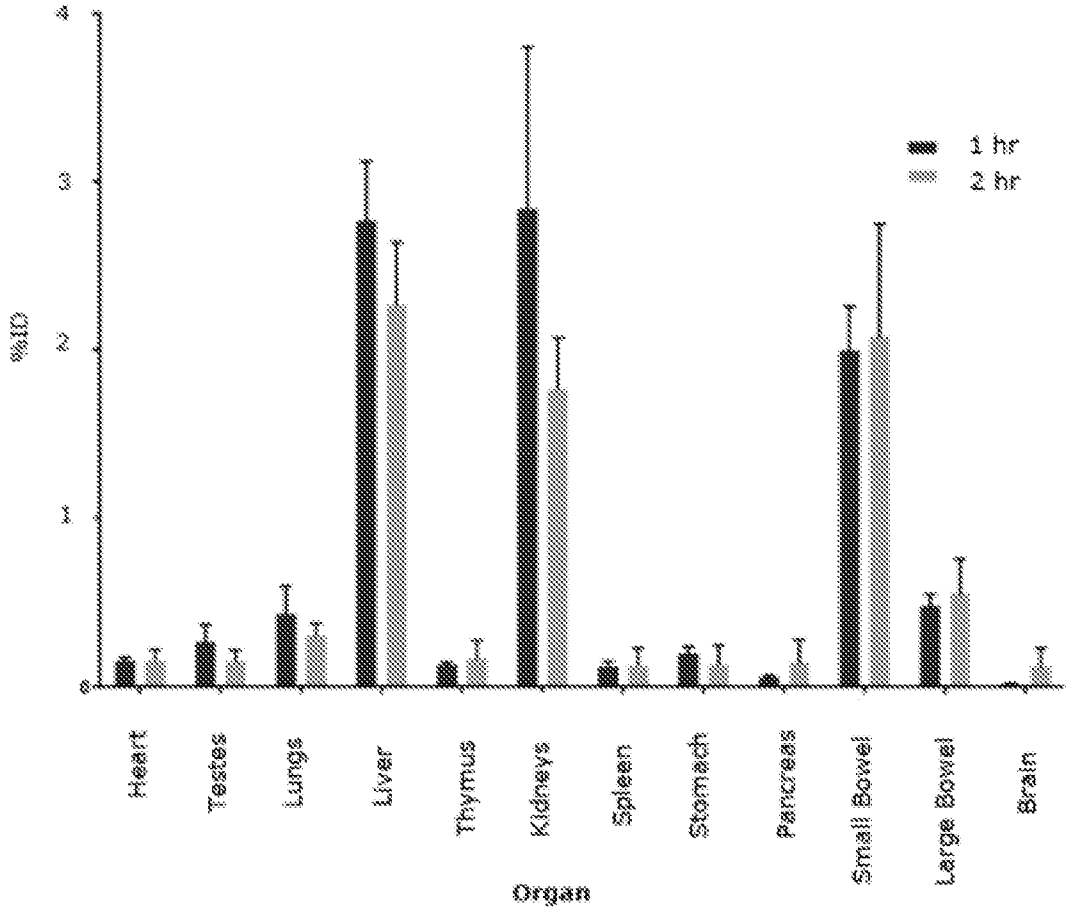

%ID
1 hr
2 hr
Heart
Testes
Lungs
Liver
Thymus
Kidneys
Spleen
Stomach
Pancreas
Small Bowel
Large Bowel
Brain
Organ

Fig. 22

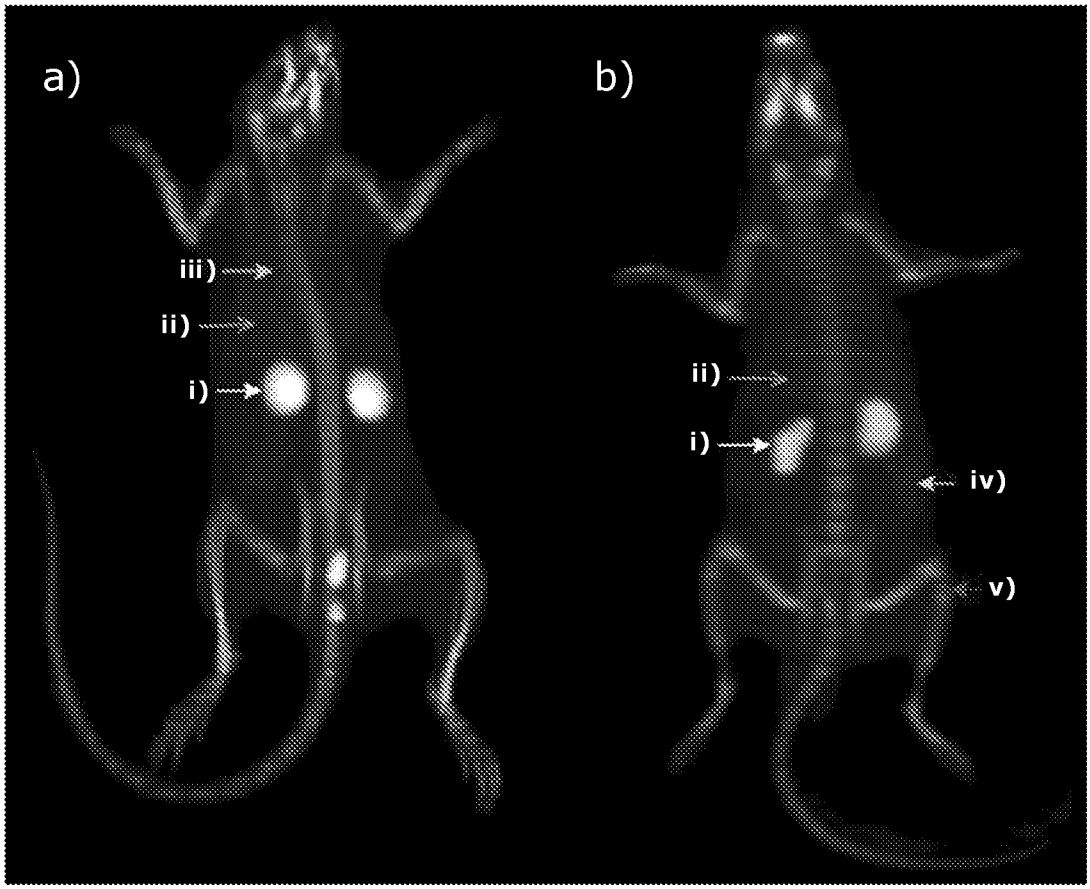


Fig. 23

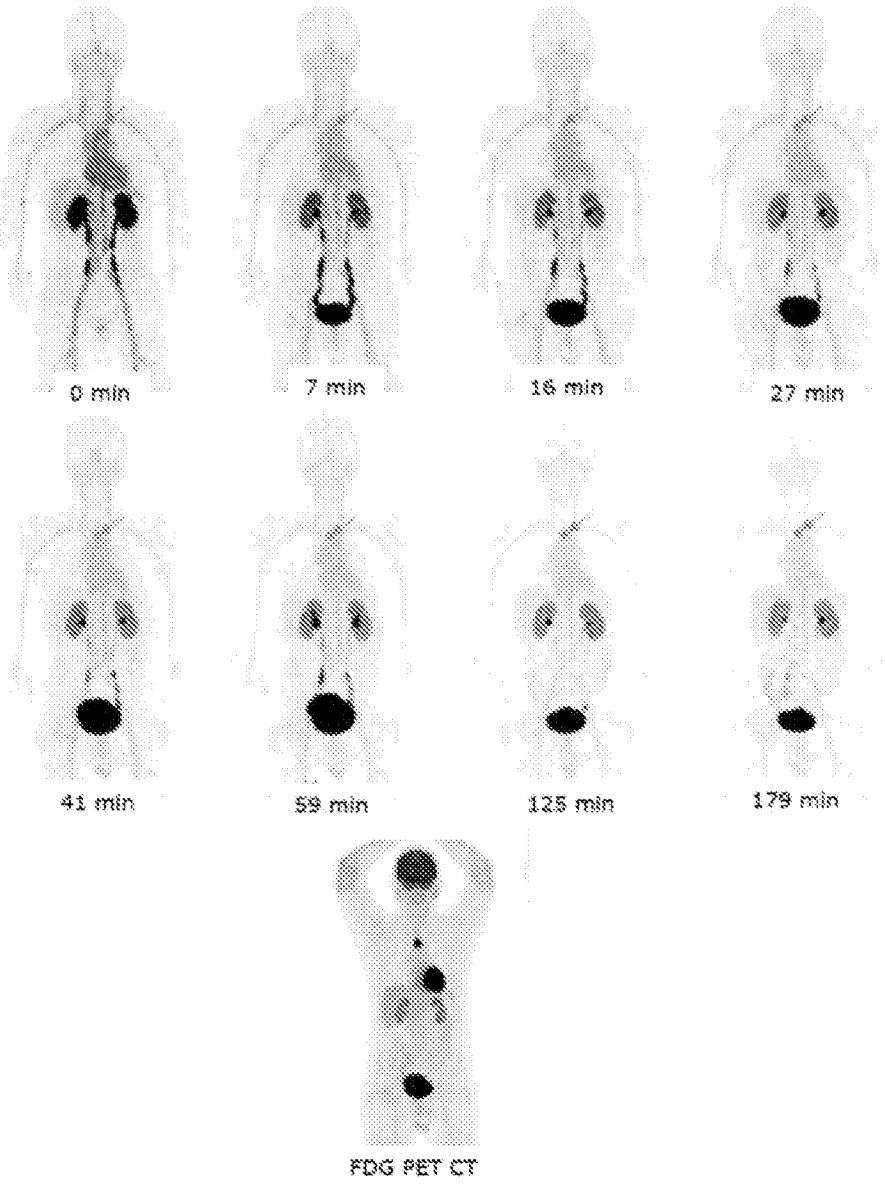


Fig. 24

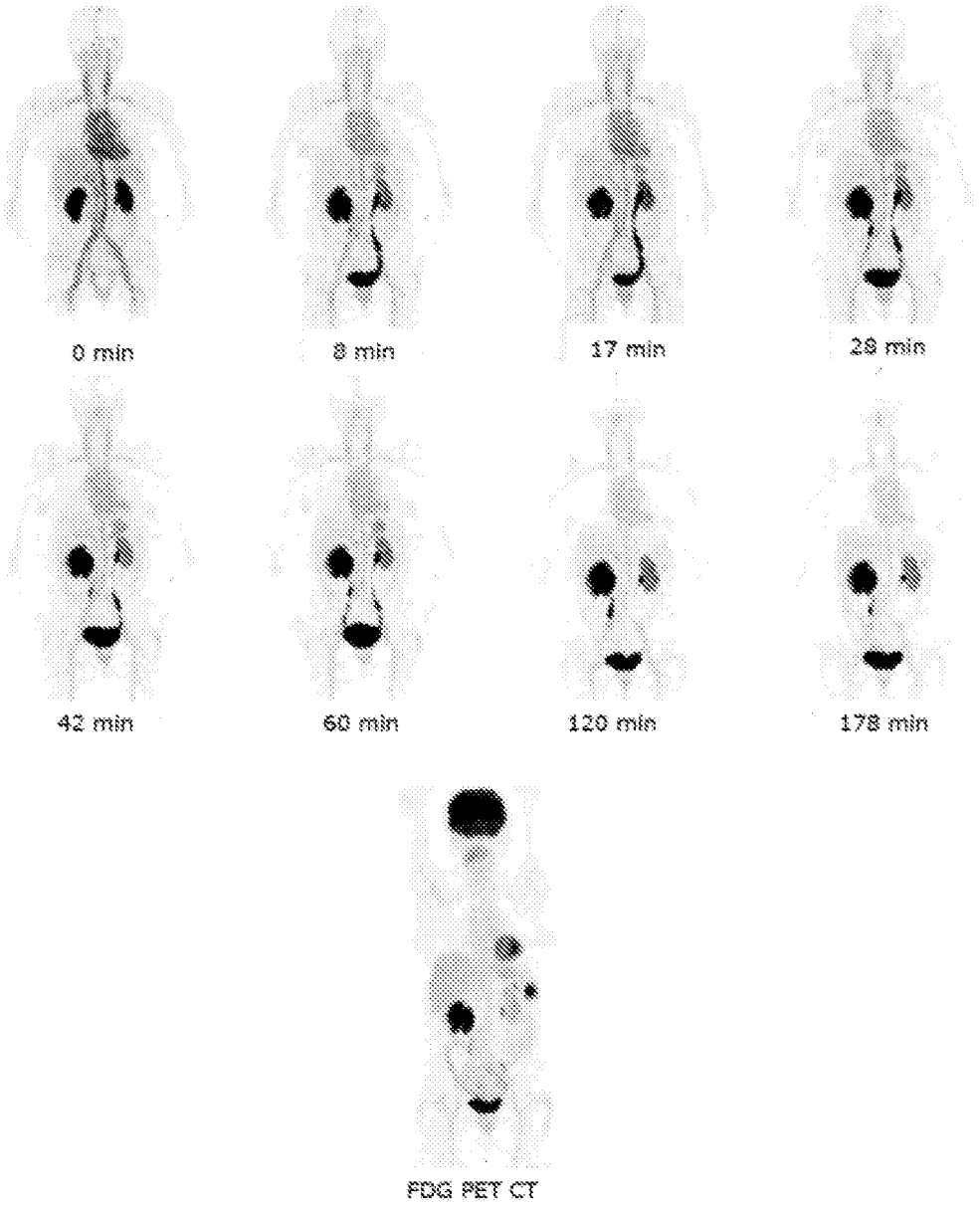


Fig. 25

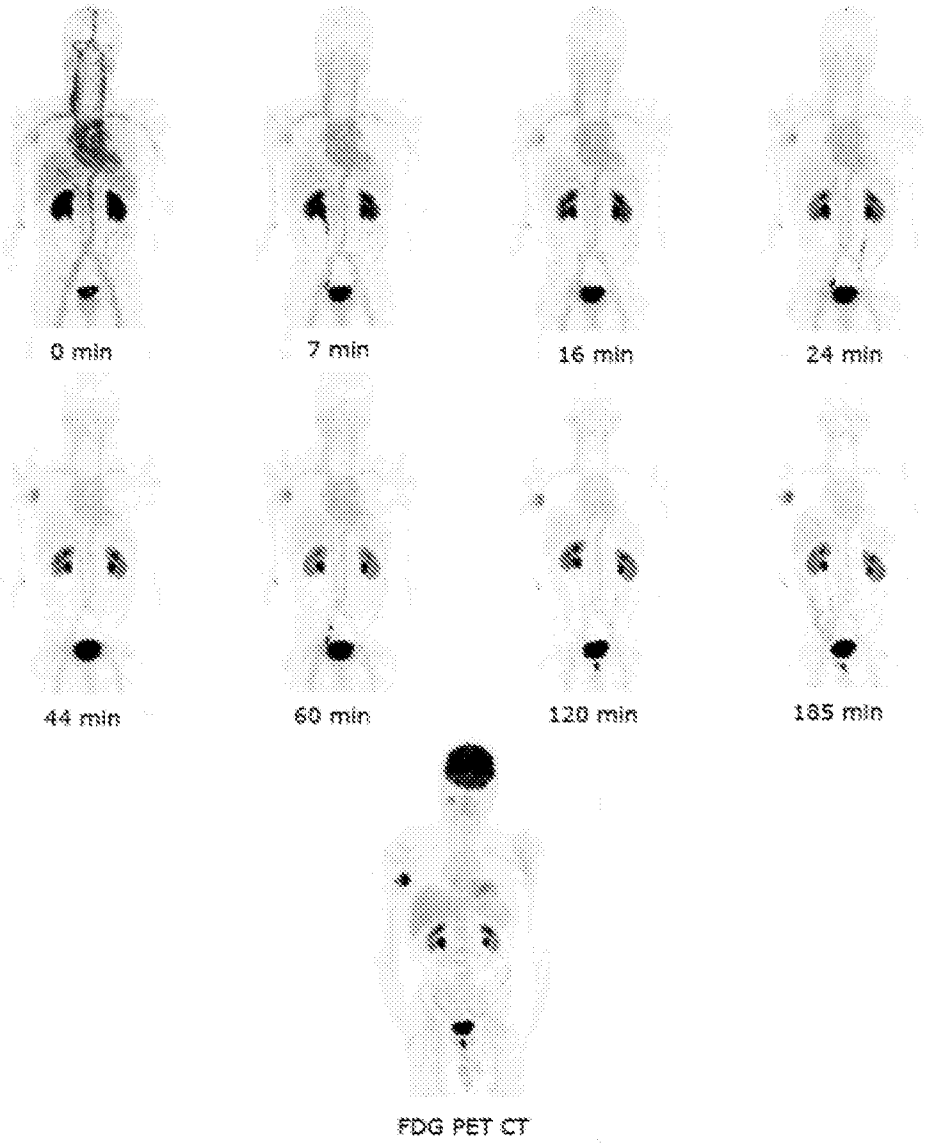
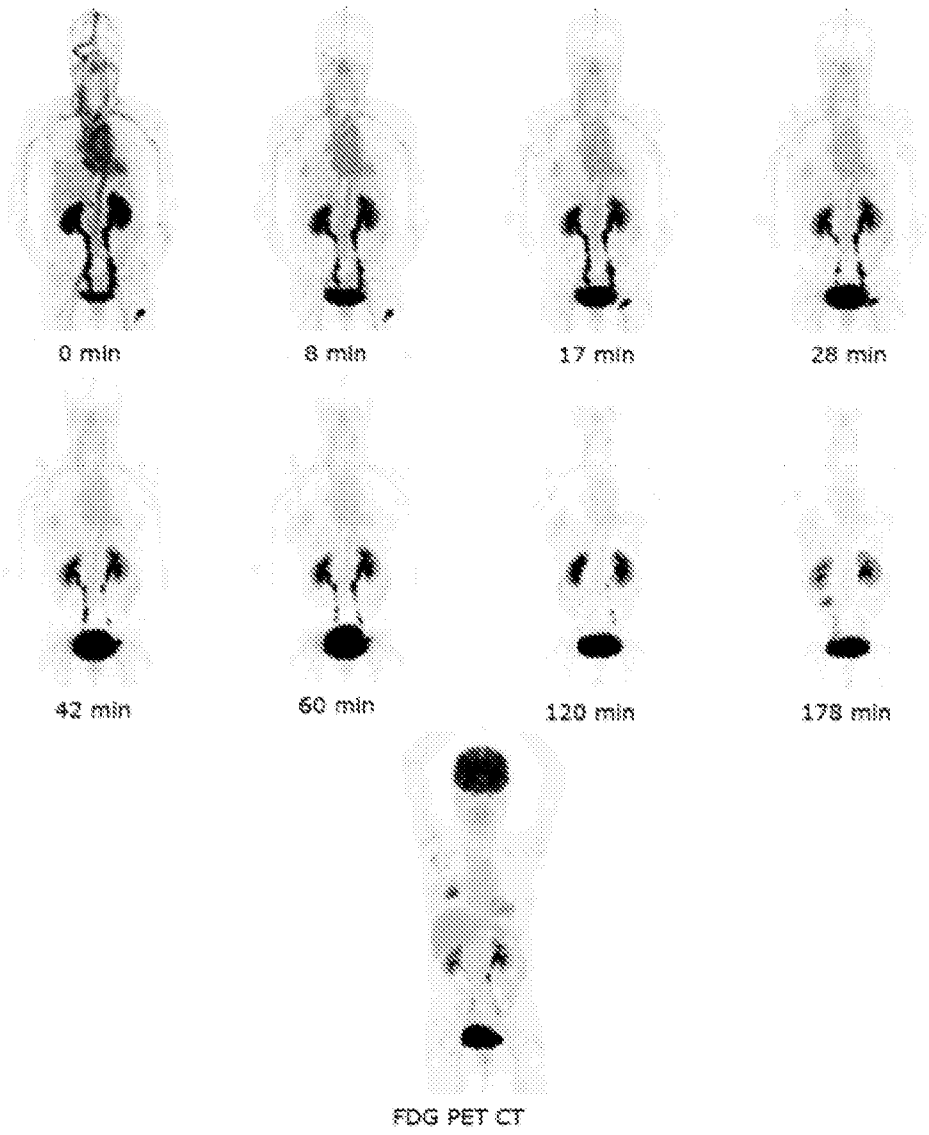


Fig. 26



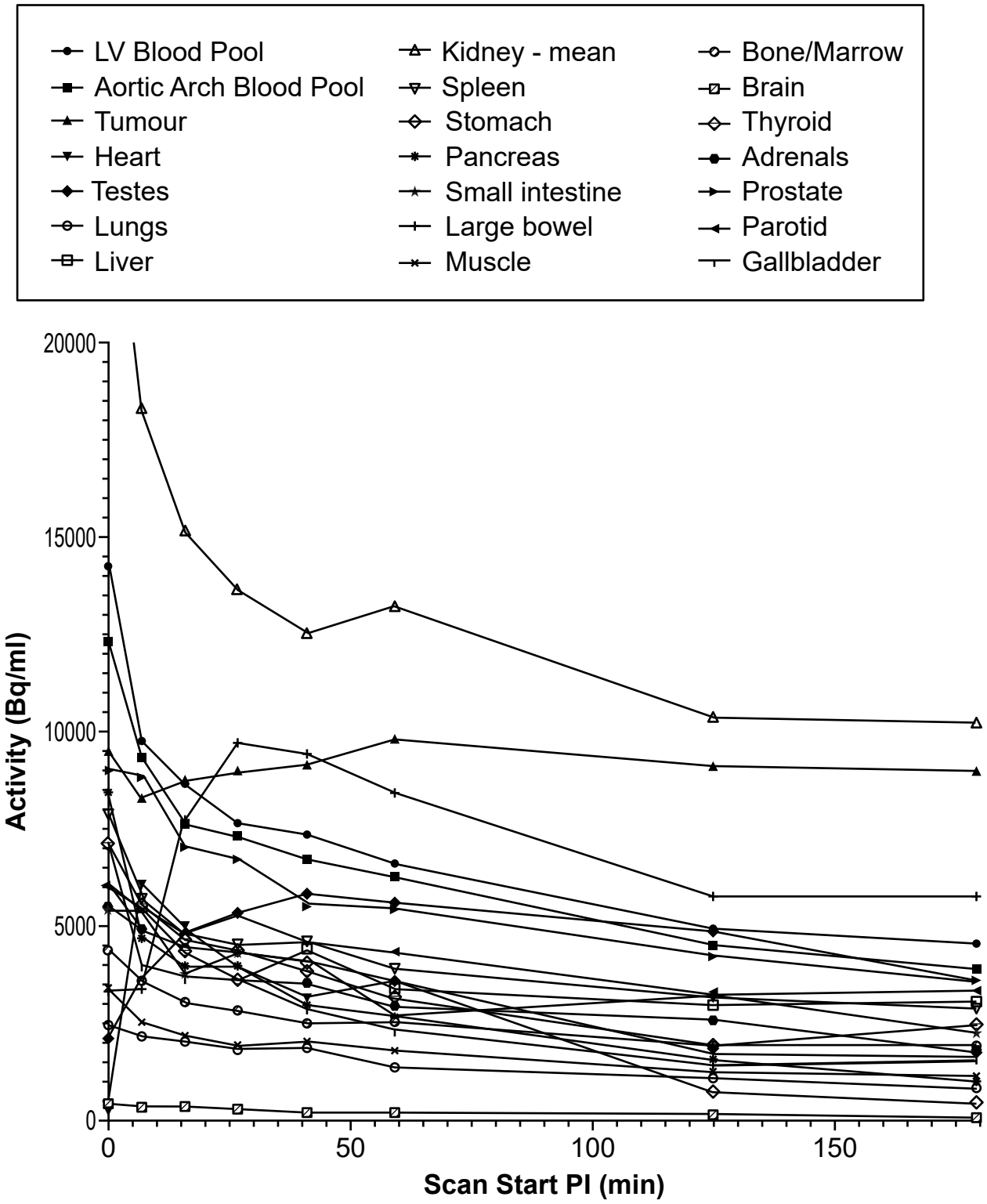

LV Blood Pool
Aortic Arch Blood Pool
Tumour
Heart
Testes
Lungs
Liver
Kidney - mean
Spleen
Stomach
Pancreas
Small intestine
Large bowel
Muscle
Bone/Marrow
Brain
Thyroid
Adrenals
Prostate
Parotid
Gallbladder
20000
15000
10000
5000
0
Activity (Bq/ml)
0
50
100
150
Scan Start PI (min)

FIG. 27

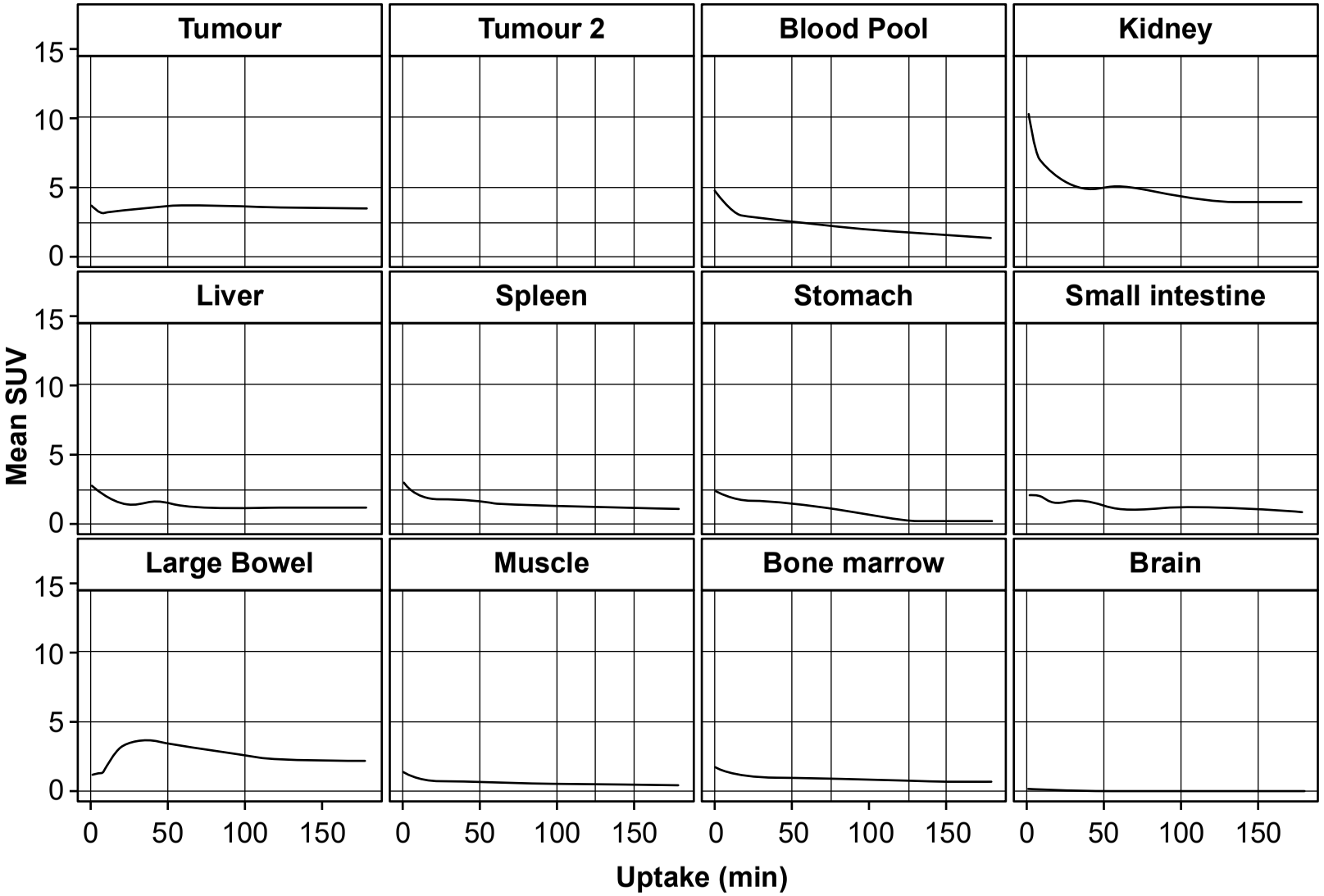

Tumour
Tumour 2
Blood Pool
Kidney
Liver
Spleen
Stomach
Small intestine
Large Bowel
Muscle
Bone marrow
Brain
Mean SUV
Uptake (min)
0
5
10
15
0
50
100
150

FIG. 28

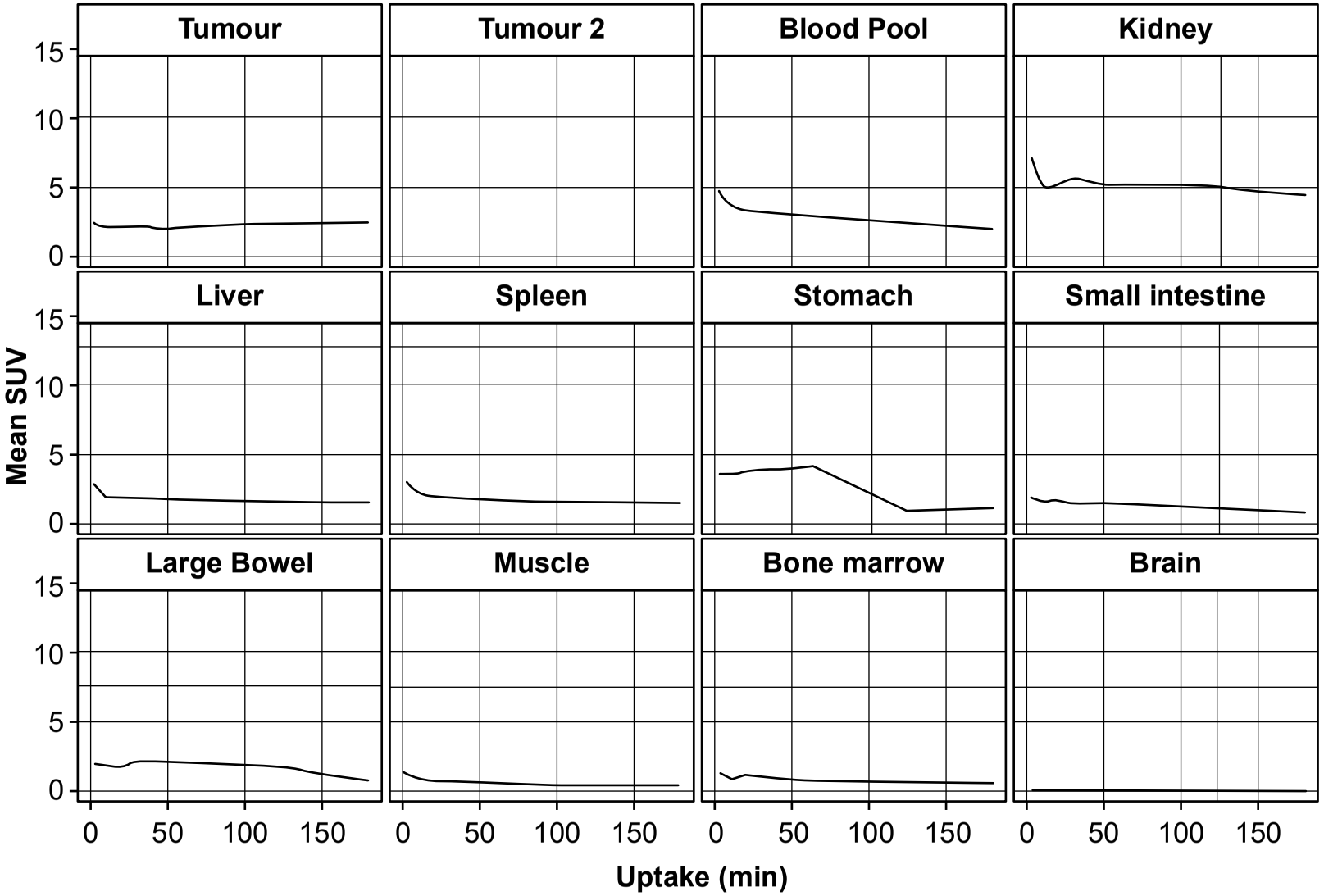

Tumour
Tumour 2
Blood Pool
Kidney
Liver
Spleen
Stomach
Small intestine
Large Bowel
Muscle
Bone marrow
Brain
Mean SUV
Uptake (min)
0
5
10
15
0
50
100
150

FIG. 29

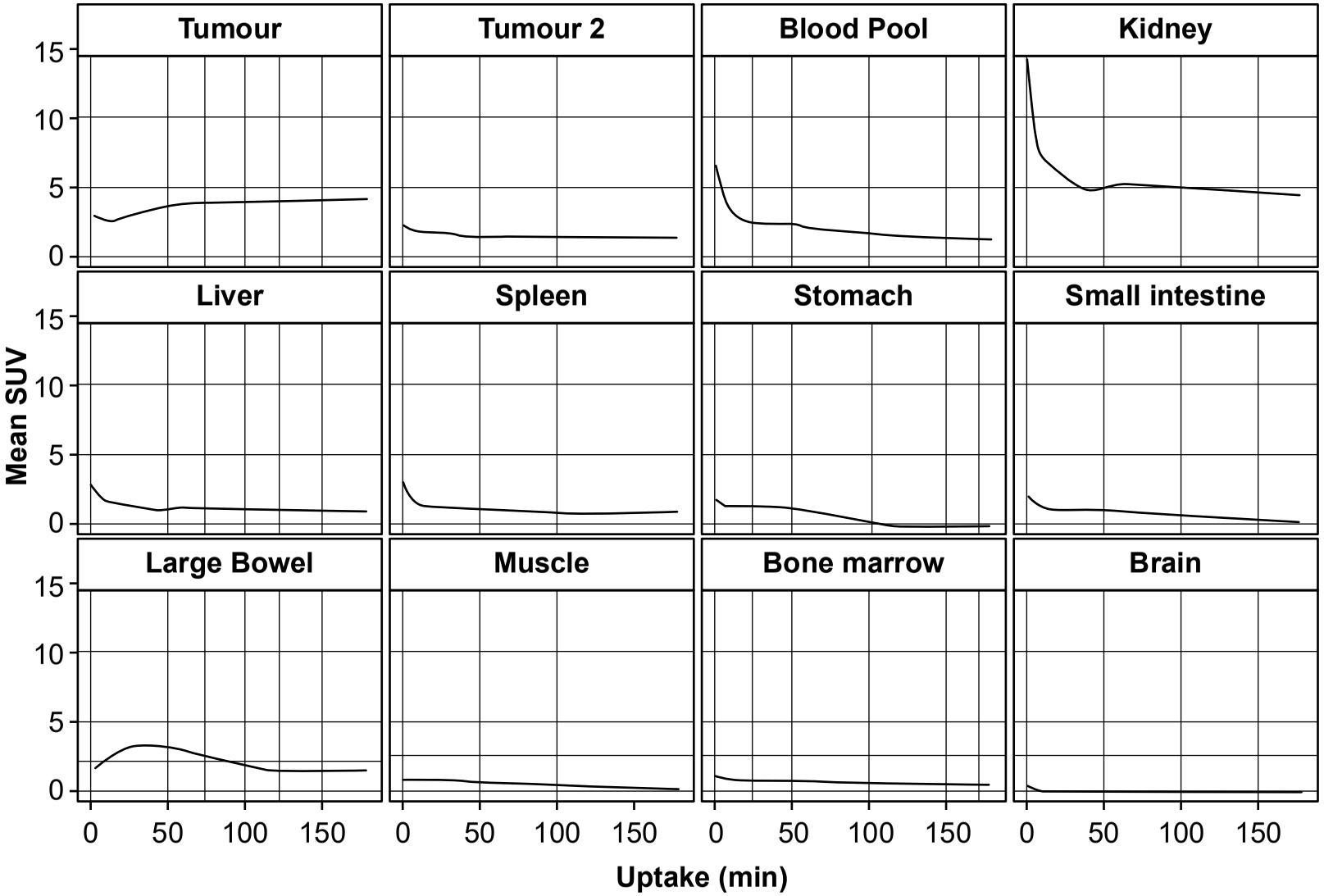

Tumour
Tumour 2
Blood Pool
Kidney
Liver
Spleen
Stomach
Small intestine
Large Bowel
Muscle
Bone marrow
Brain
Mean SUV
0
5
10
15
0
50
100
150
Uptake (min)

FIG. 30

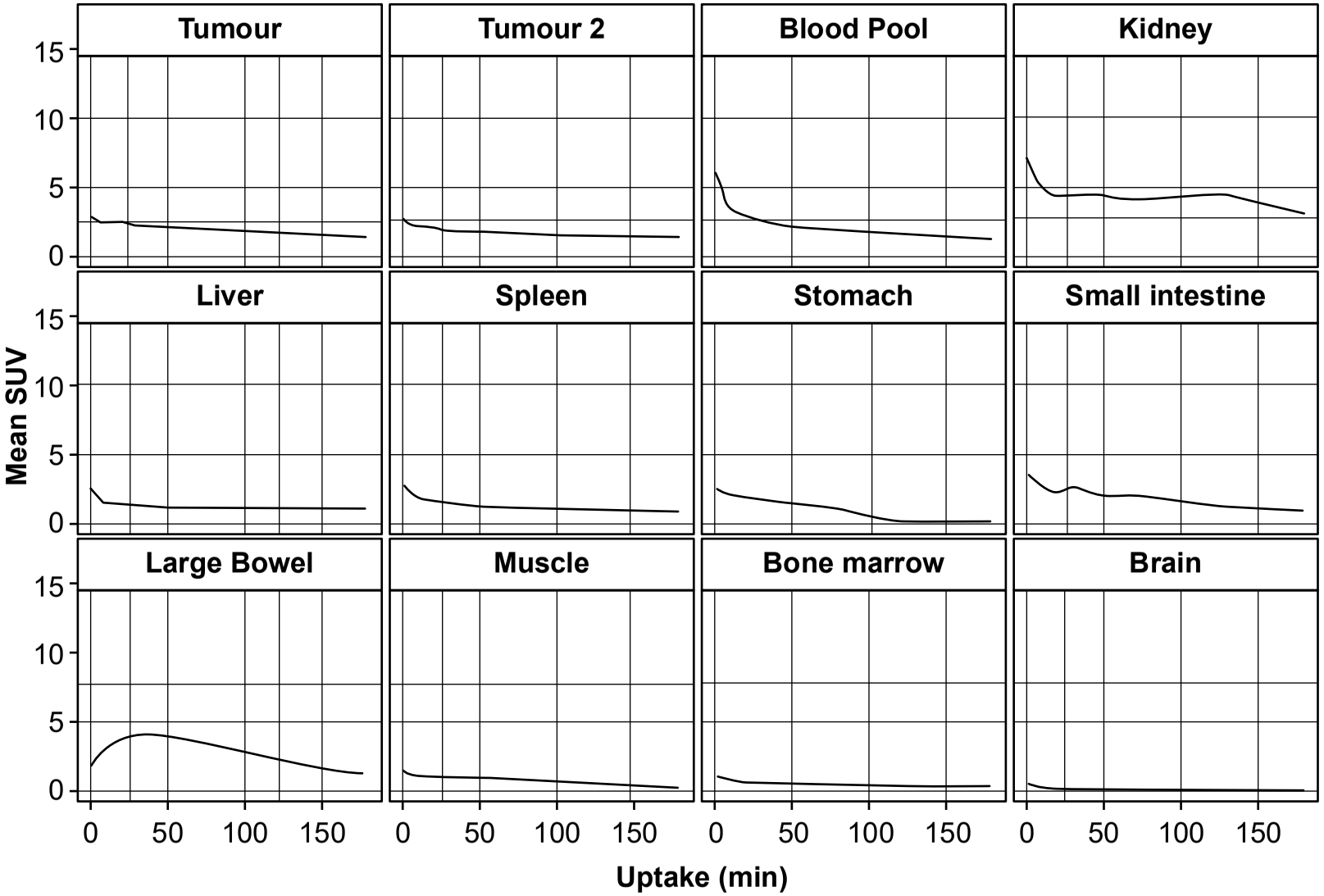

Tumour
Tumour 2
Blood Pool
Kidney
Liver
Spleen
Stomach
Small intestine
Large Bowel
Muscle
Bone marrow
Brain
Mean SUV
Uptake (min)
0
5
10
15
0
50
100
150

FIG. 31

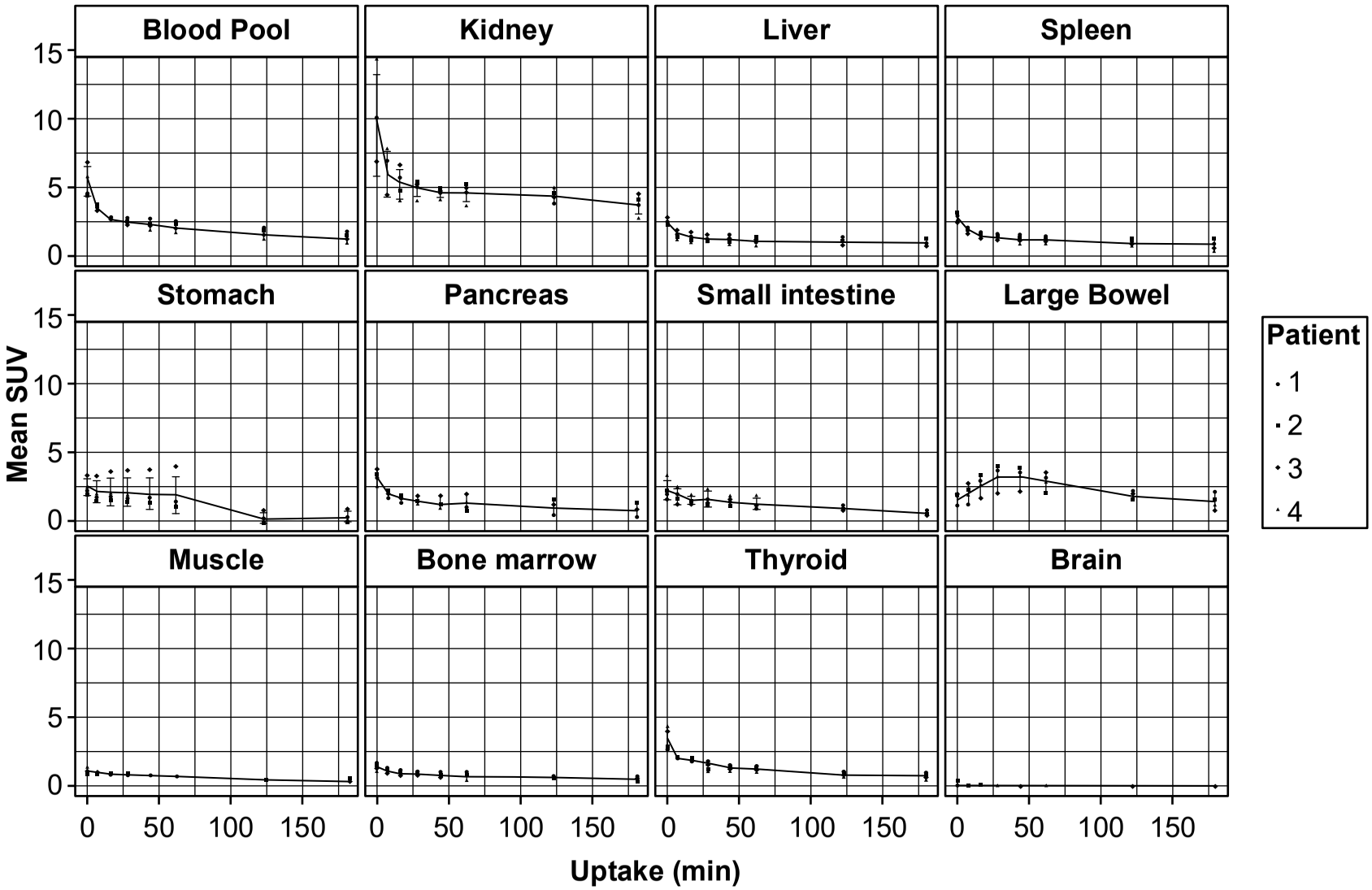

Blood Pool
Kidney
Liver
Spleen
Stomach
Pancreas
Small intestine
Large Bowel
Muscle
Bone marrow
Thyroid
Brain
Mean SUV
Uptake (min)
0
5
10
15
0
50
100
150
Patient
1
2
3
4

FIG. 32

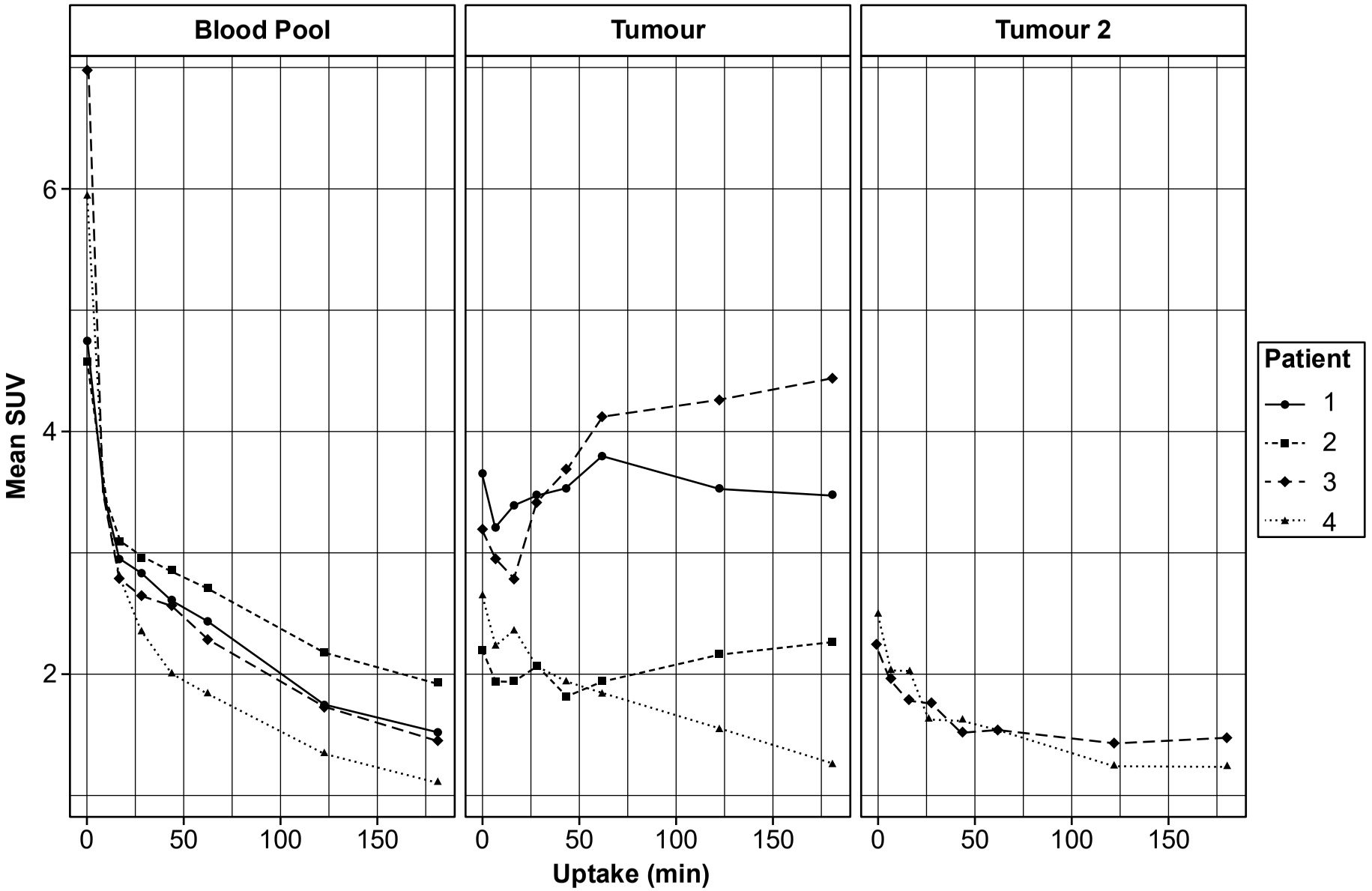
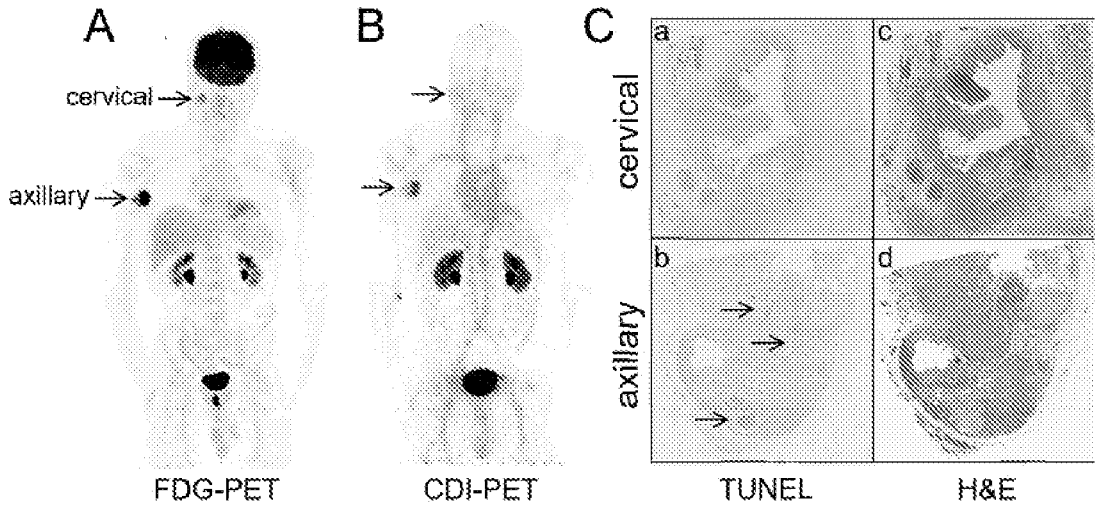

Blood Pool
Tumour
Tumour 2
Mean SUV
6
4
2
0
50
100
150
Uptake (min)
Patient
1
2
3
4

FIG. 33

Fig. 34


A
cervical
axillary
FDG-PET
B
CDI-PET
C
a
c
b
d
cervical
axillary
TUNEL
H&E