Fig. 1

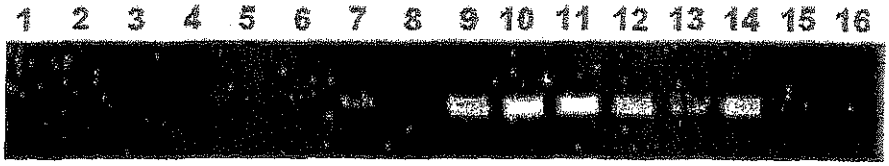


Fig. 2

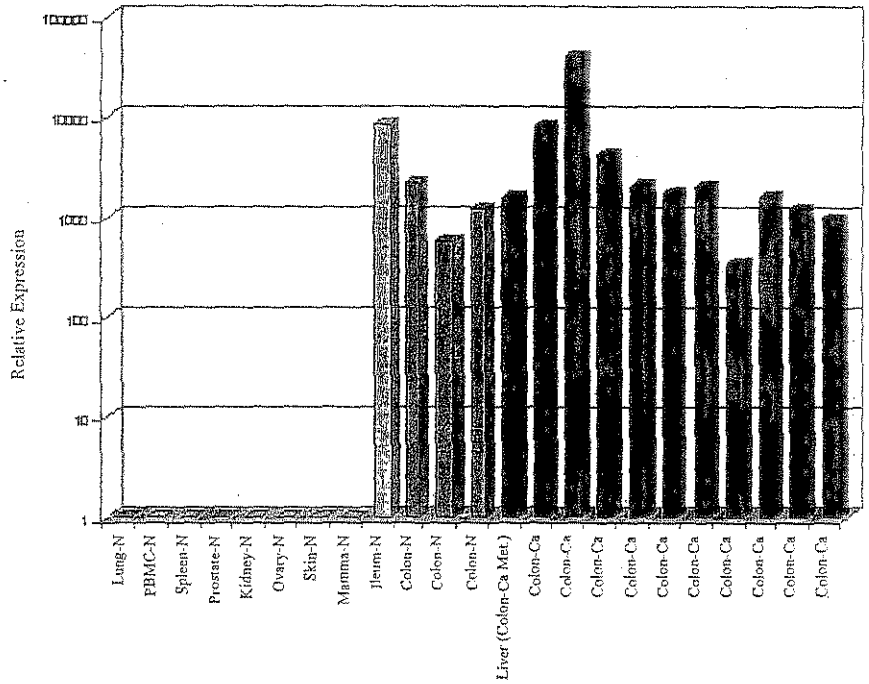

Relative Expression
100000
10000
1000
100
10
1
Lung-N
PBMC-N
Spleen-N
Prostate-N
Kidney-N
Ovary-N
Skin-N
Mamma-N
Jleum-N
Colon-N
Colon-N
Colon-N
Liver (Colon-Ca Met.)
Colon-Ca
Colon-Ca
Colon-Ca
Colon-Ca
Colon-Ca
Colon-Ca
Colon-Ca
Colon-Ca
Colon-Ca
Colon-Ca

Fig. 3

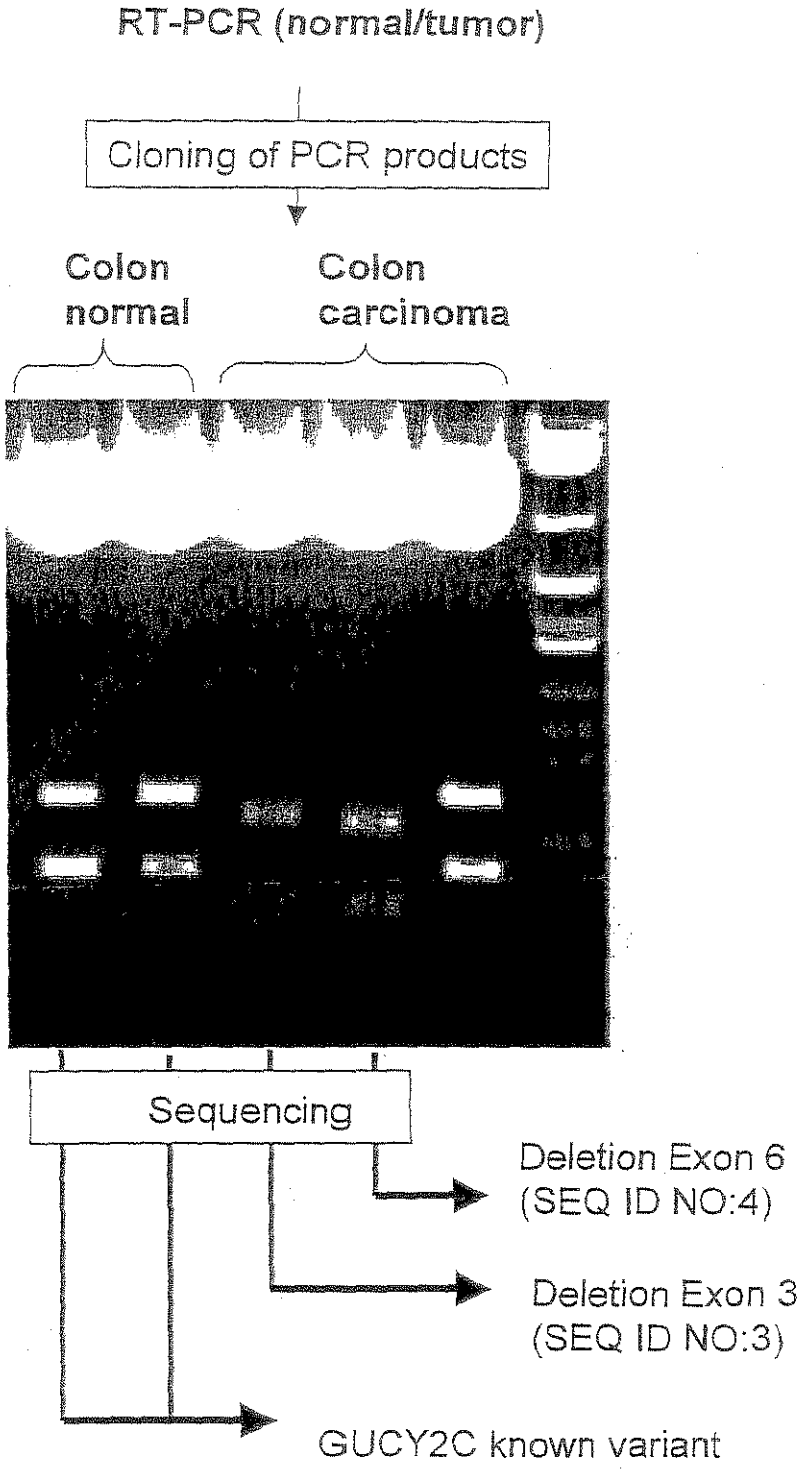

RT-PCR (normal/tumor)
Cloning of PCR products
Colon normal
Colon carcinoma
Sequencing
Deletion Exon 6 (SEQ ID NO:4)
Deletion Exon 3 (SEQ ID NO:3)
GUCY2C known variant

Fig. 4

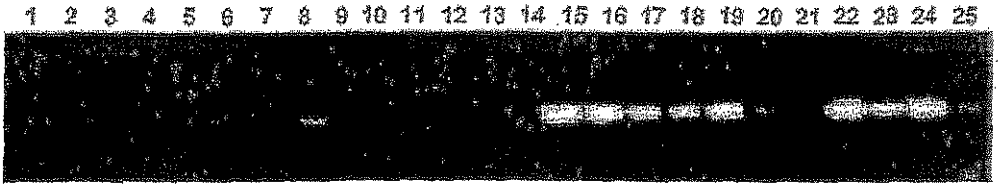


Fig. 5

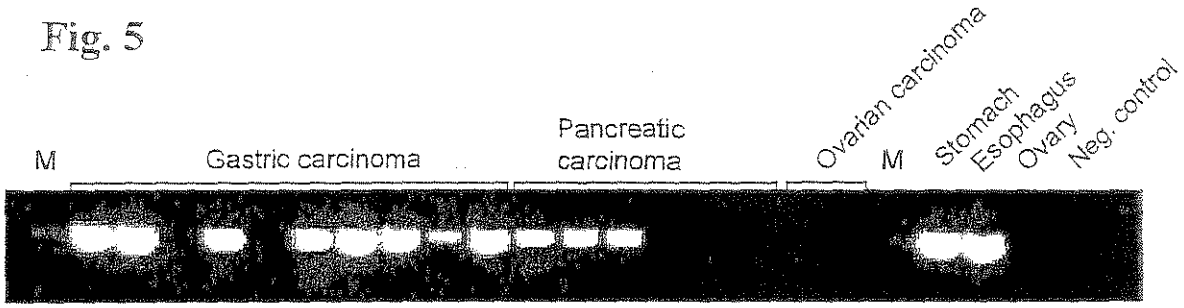

M
Gastric carcinoma
Pancreatic carcinoma
Ovarian carcinoma
M
Stomach
Esophagus
Ovary
Neg. control

Fig. 6

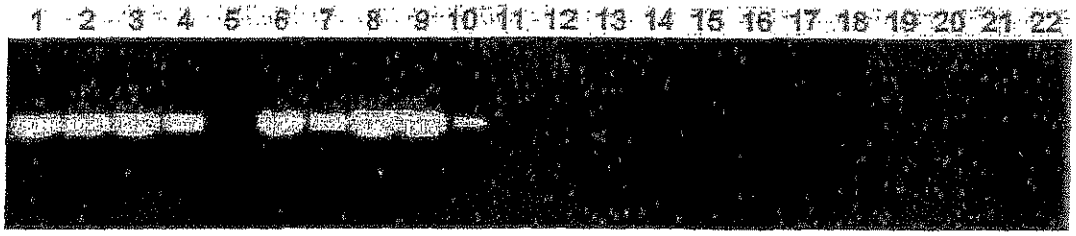


Fig 7

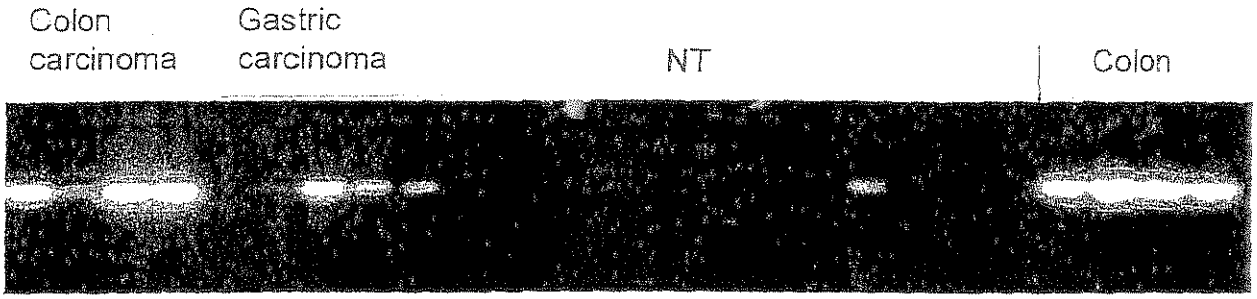


Fig. 8

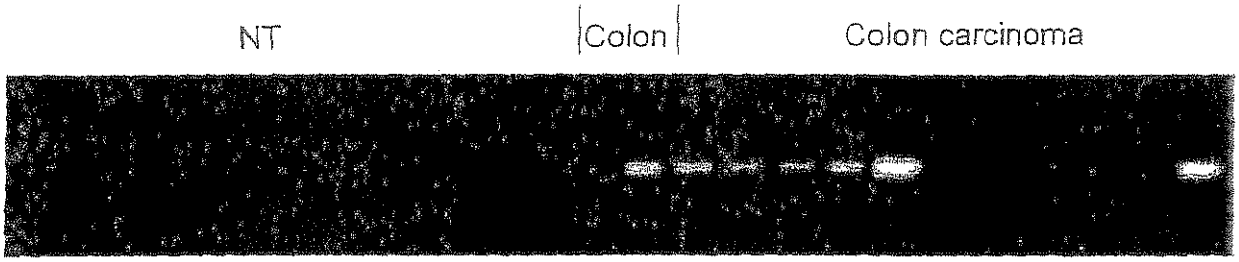


Fig. 9

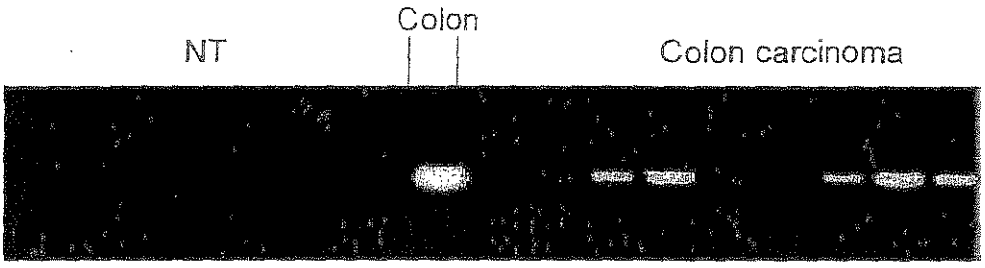


Fig. 10

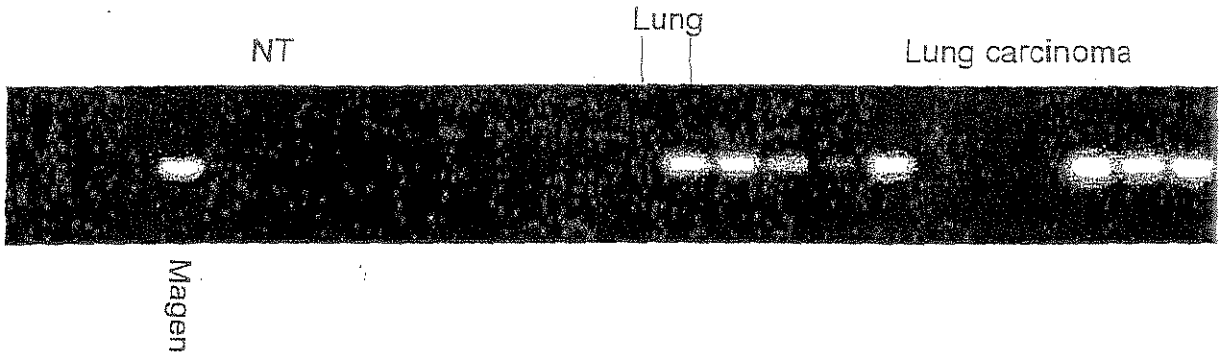


Fig. 11

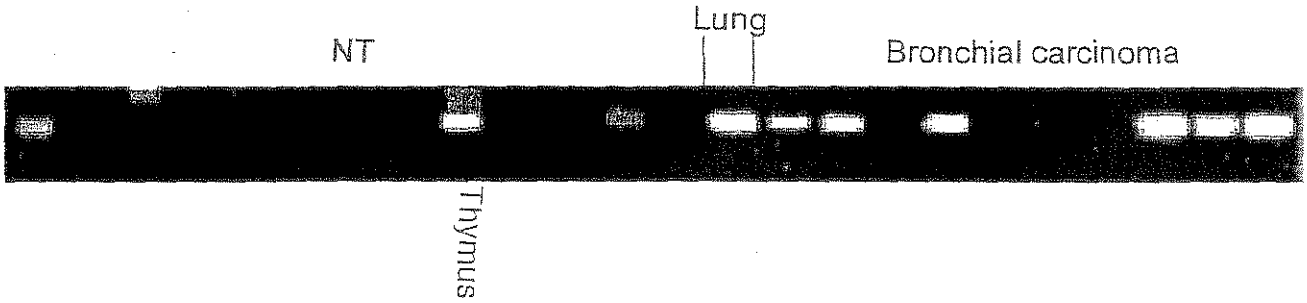


Fig. 12

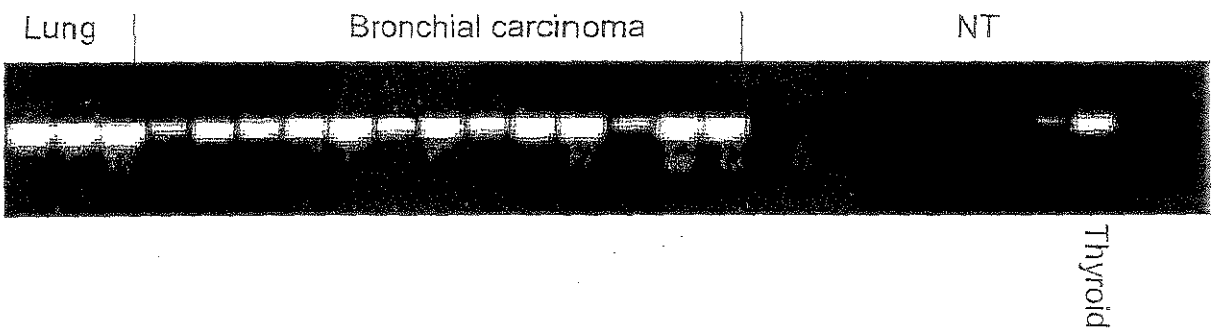


Fig. 13

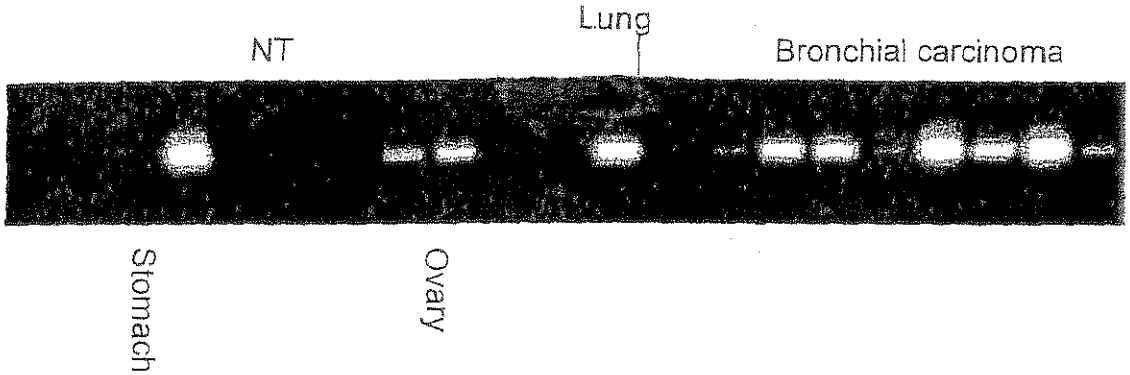


Fig. 14

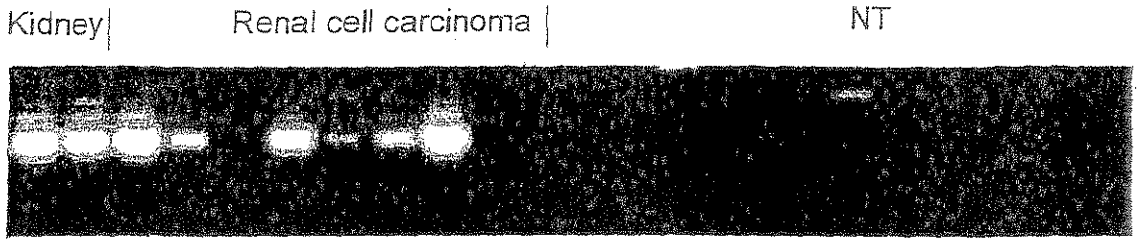


Fig. 15

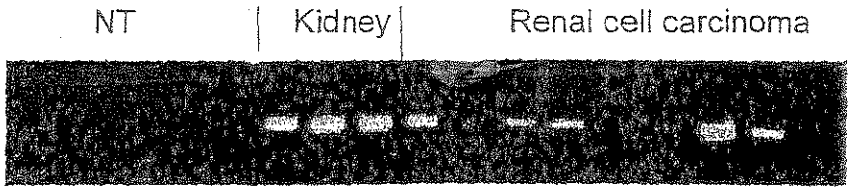
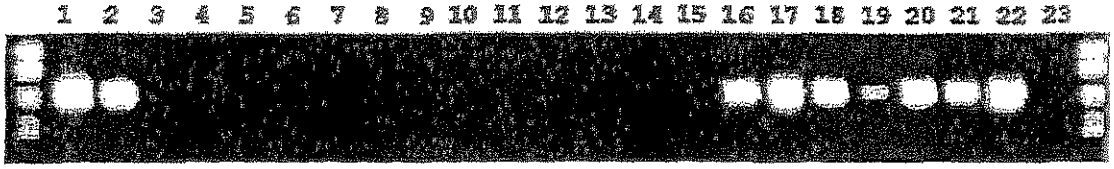
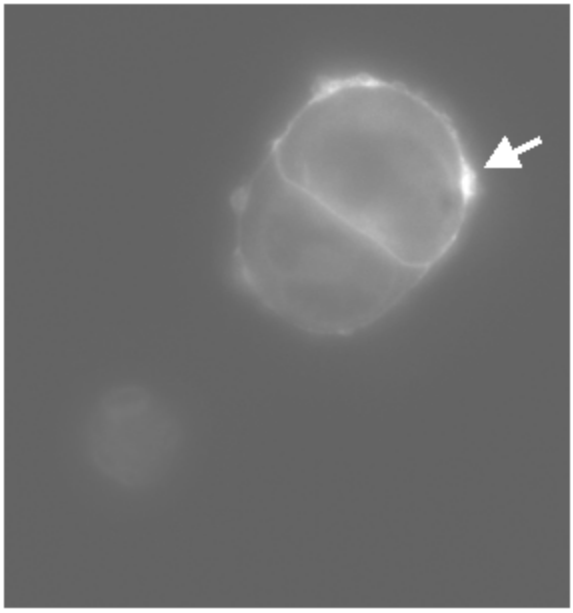


Fig. 16





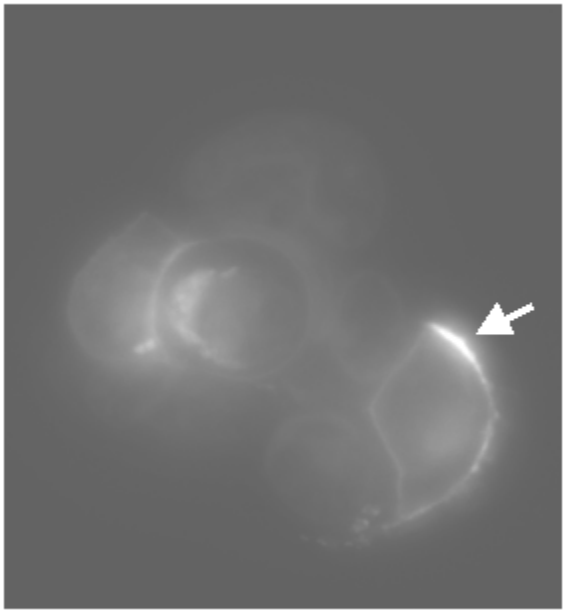
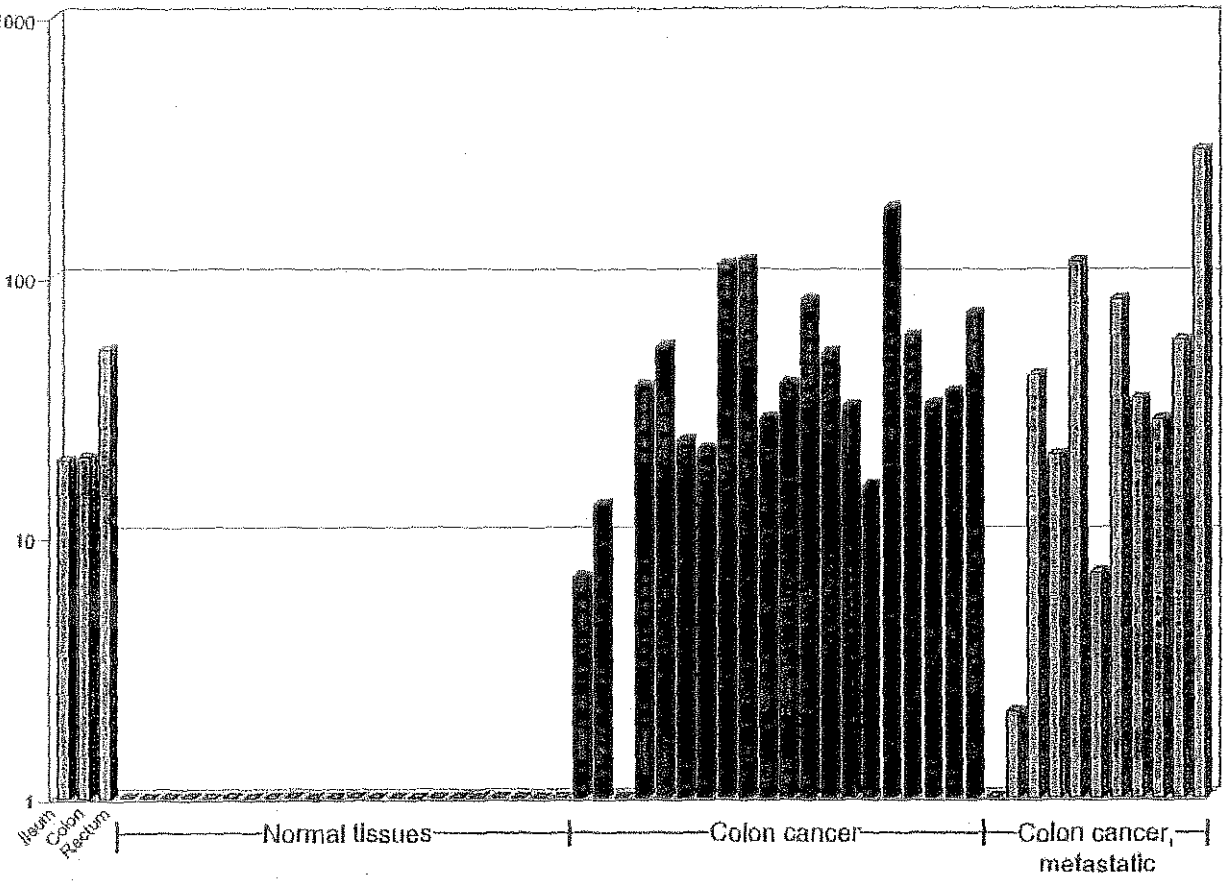


Fig. 17

Fig. 18

A

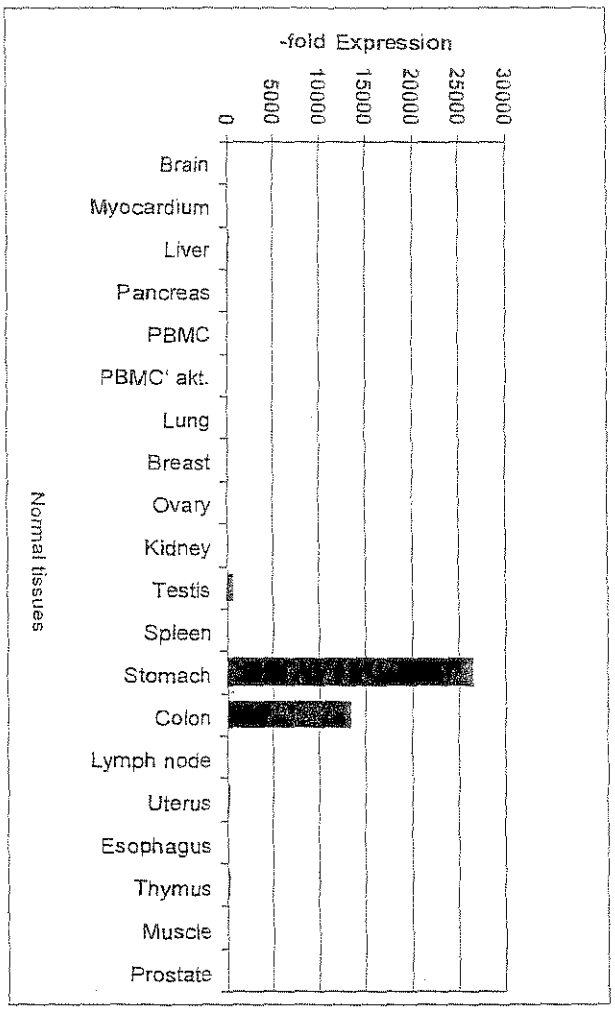


B

Cancer type	Expression	%
colorektal, primary	19/20	95
colorektal, metast.	14/15	93

Fig. 16

A


-fold Expression
0
5000
10000
15000
20000
25000
30000
Brain
Myocardium
Liver
Pancreas
PBMC
PBMC' akt.
Lung
Breast
Ovary
Kidney
Testis
Spleen
Stomach
Colon
Lymph node
Uterus
Esophagus
Thymus
Muscle
Prostate
Normal tissues

B

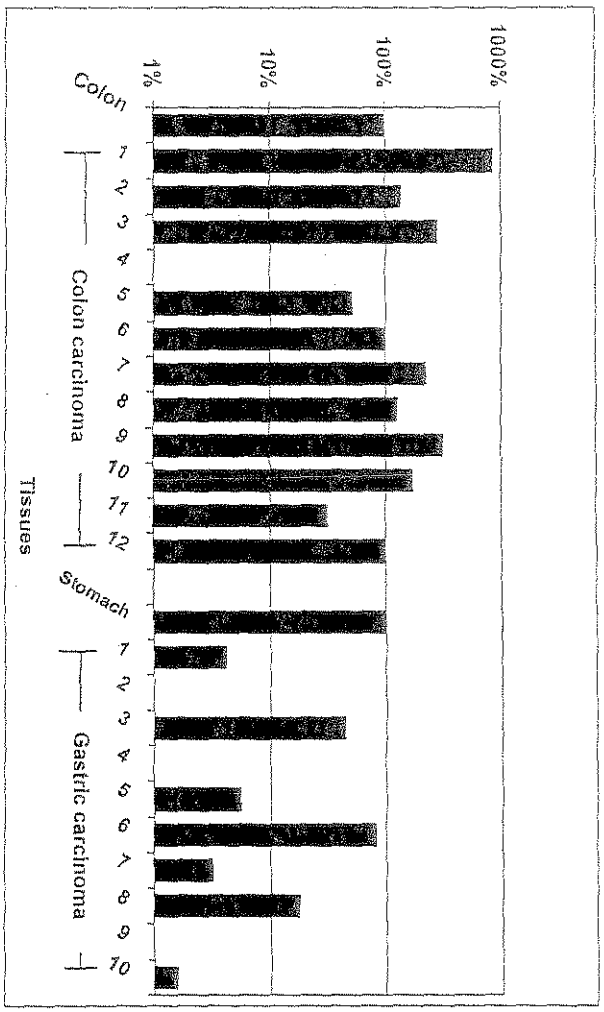
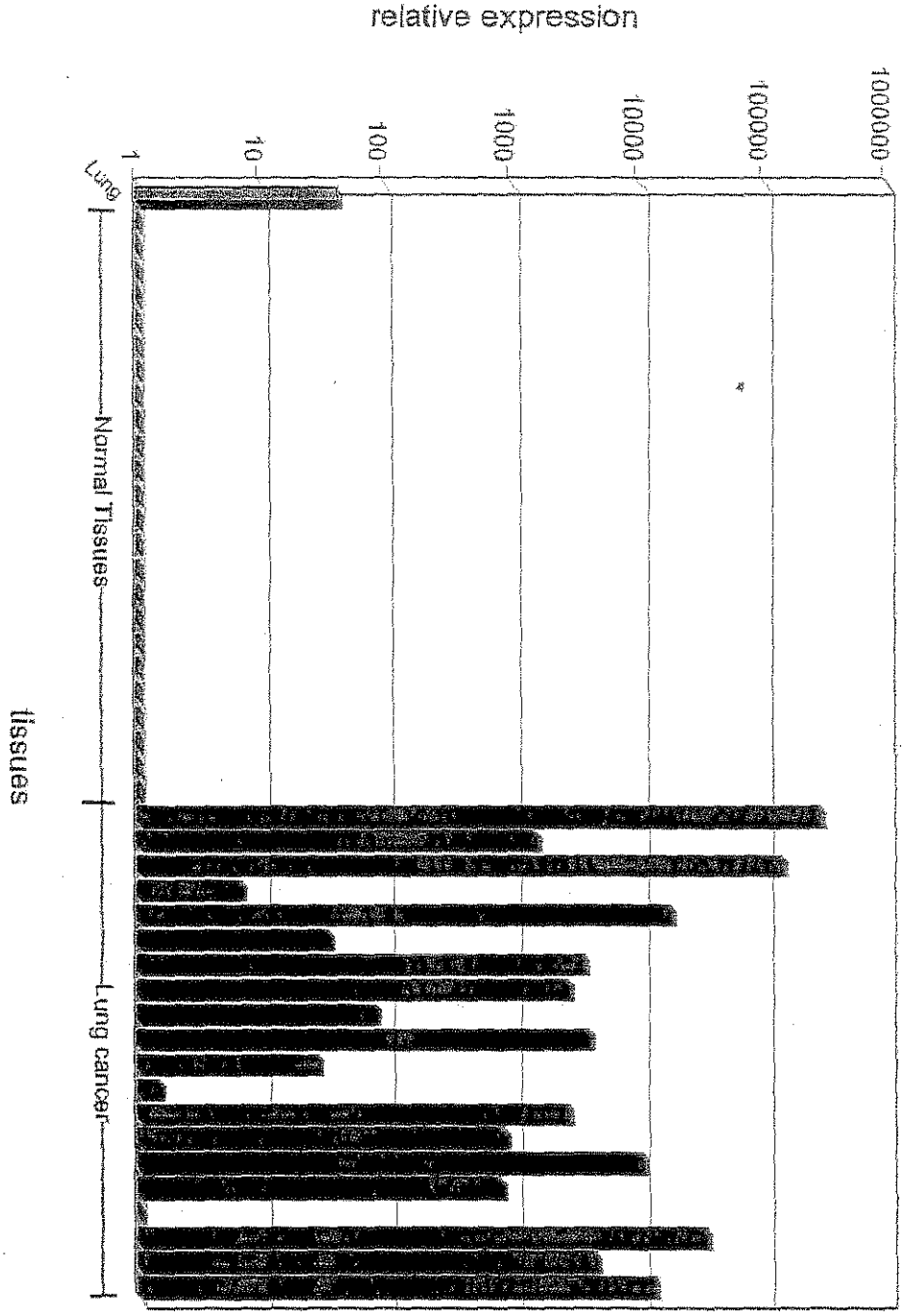
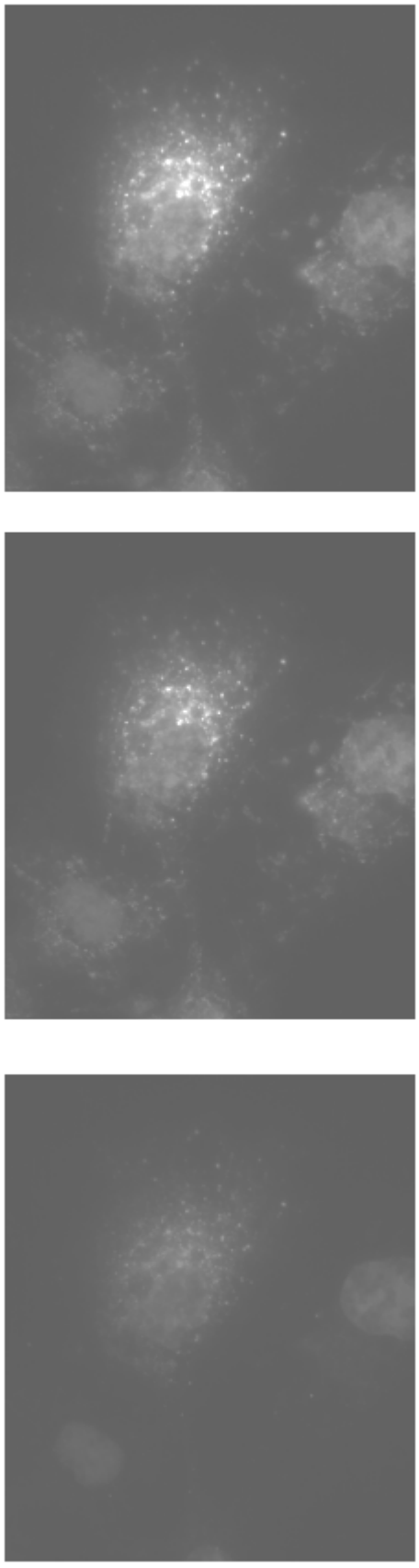

1%
10%
100%
1000%
Colon
1
2
3
4
5
6
7
8
9
10
11
12
Colon carcinoma
Stomach
1
2
3
4
5
6
7
8
9
10
Gastric carcinoma
Tissues

Fig. 20


relative expression
1
10
100
1000
10000
100000
1000000
Lung
Normal Tissues
Lung cancer
tissues



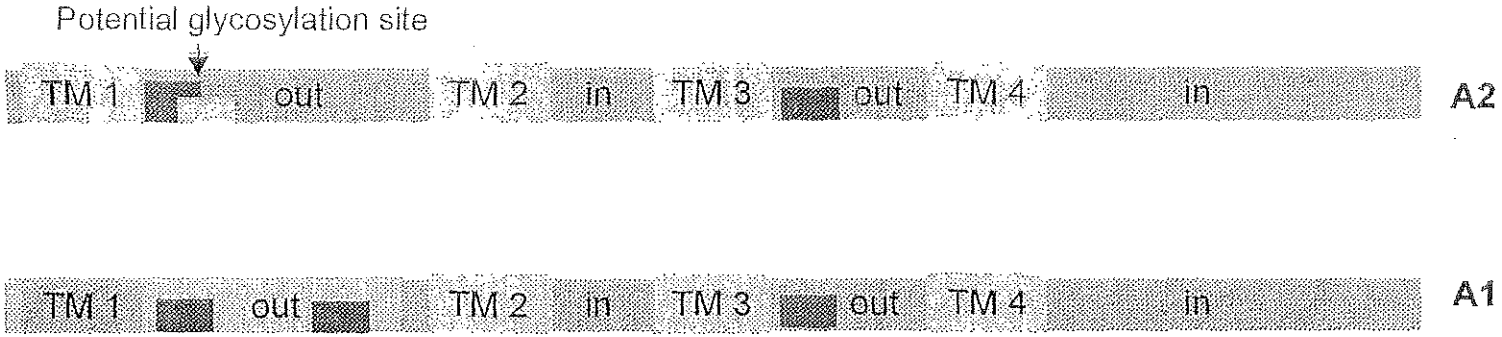
C.

B.

A.

Fig. 21

Fig. 22



Predicted glycosylation sites (amino acid positions)

Gastric variant

SeqName	Position	Potential	Jury	NGlyc	Agreement	Result
Sequence	37	0.7219	(9/9)			++
Sequence	38	0.6502	(8/9)			+
Sequence	45	0.6026	(8/9)			+
Sequence	116	0.5713	(7/9)			+
Sequence	141	0.6348	(7/9)			+
Sequence	146	0.5187	(6/9)			+
Sequence	153	0.4696	(5/9)			-
Sequence	205	0.6011	(8/9)			+
Sequence	234	0.3960	(8/9)			-
Sequence	237	0.4602	(6/9)			-

Lung variant

SeqName	Position	Potential	Jury	NGlyc	Agreement	Result
Sequence	38	0.7102	(9/9)			++
Sequence	116	0.5713	(7/9)			+
Sequence	141	0.6347	(7/9)			+
Sequence	146	0.5186	(6/9)			+
Sequence	153	0.4696	(5/9)			-
Sequence	205	0.6009	(8/9)			+
Sequence	234	0.3956	(8/9)			-
Sequence	237	0.4603	(6/9)			-

Fig. 23

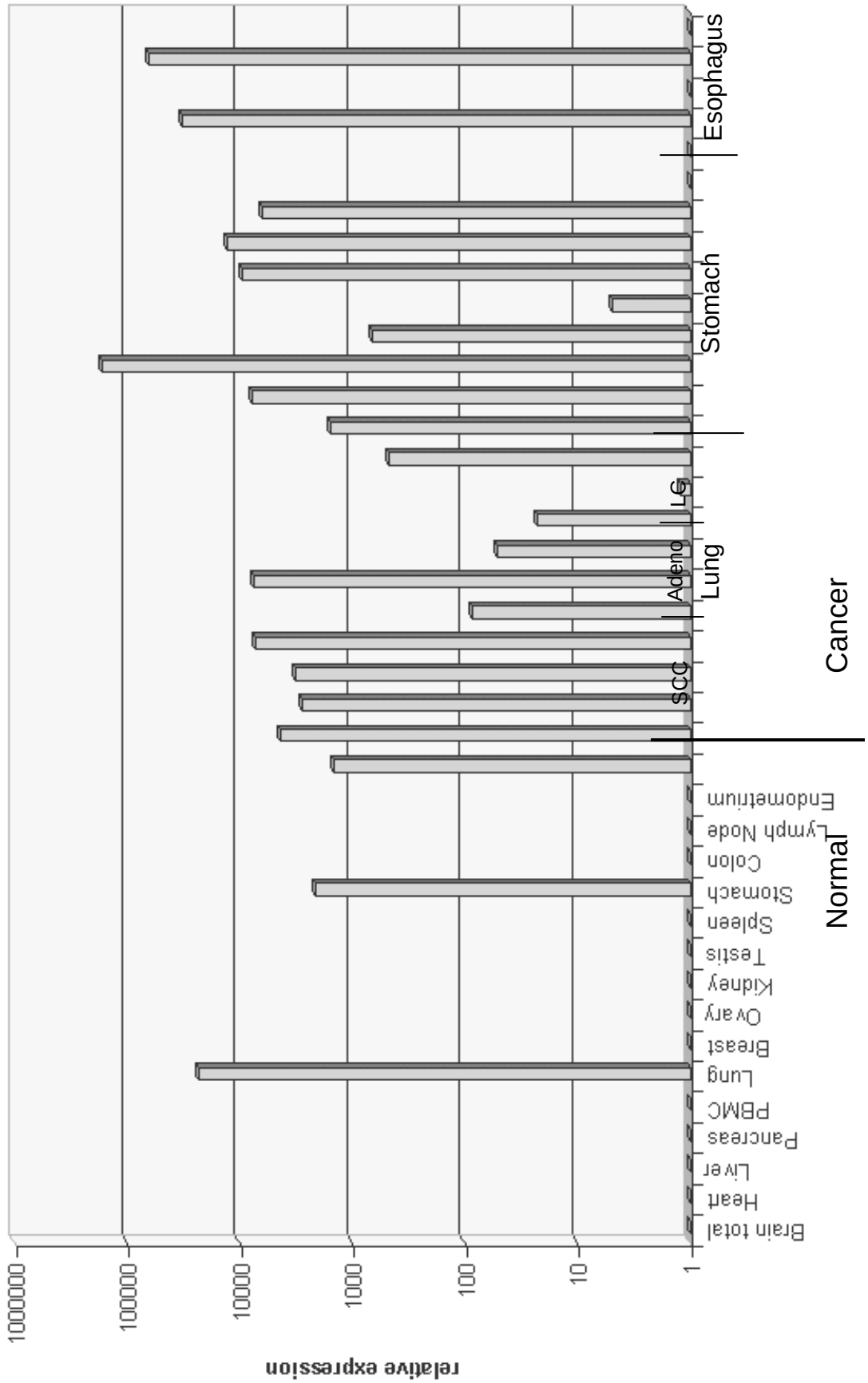

relative expression
1000000
100000
10000
1000
100
10
1
Brain total
Heart
Liver
Pancreas
PBMC
Lung
Breast
Ovary
Kidney
Testis
Spleen
Stomach
Colon
Lymph Node
Endometrium
Normal
SCC
Adeno
LG
Lung
Stomach
Esophagus
Cancer

Fig. 24

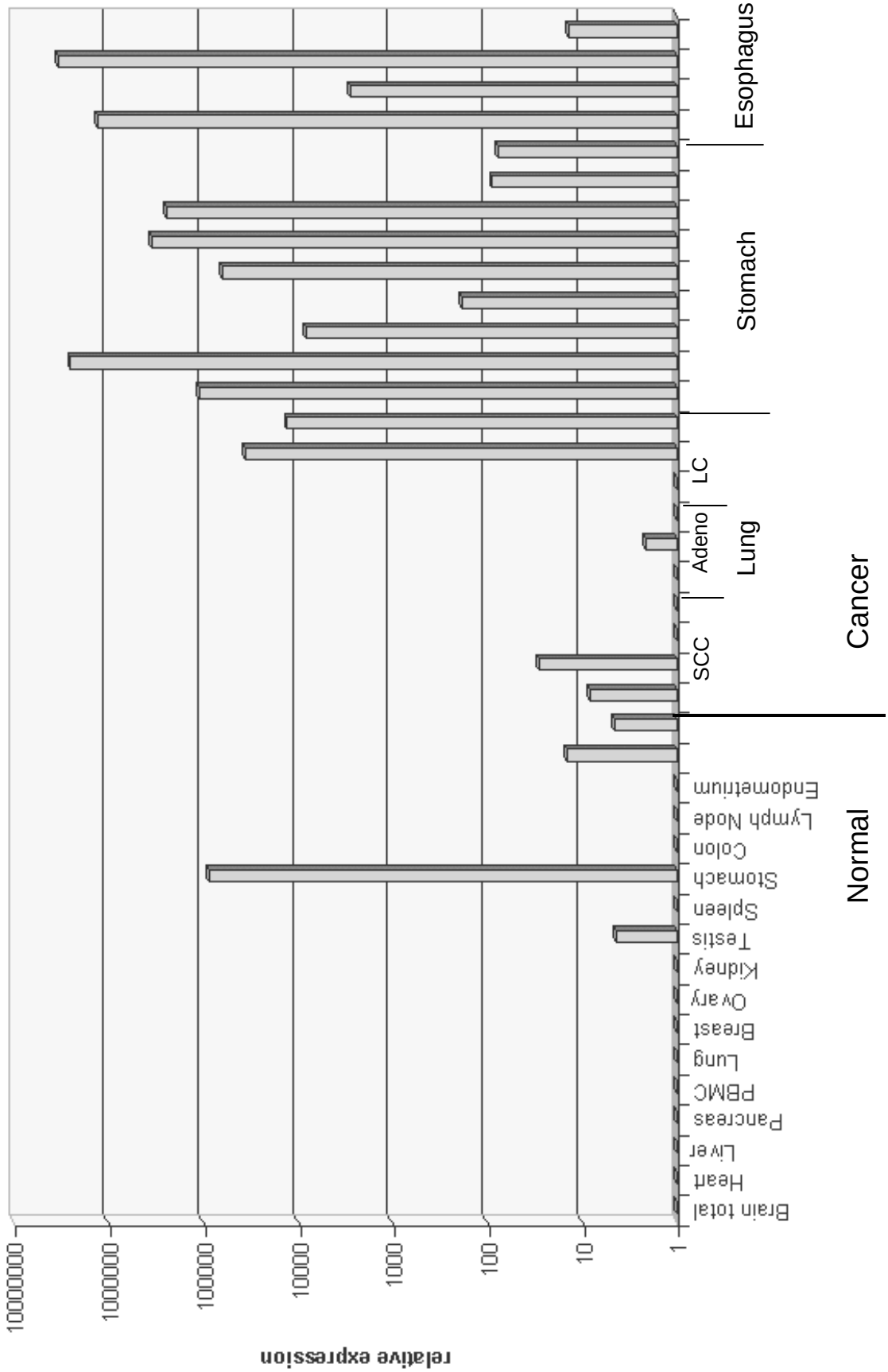
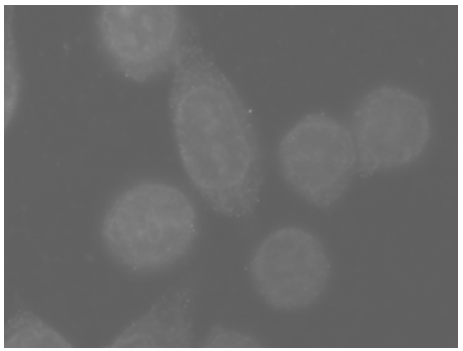
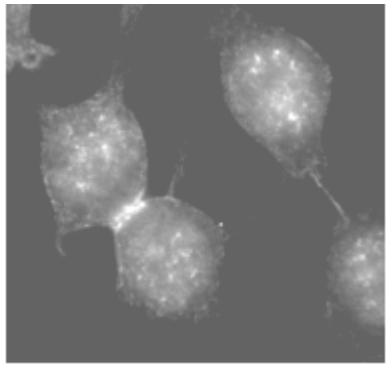

relative expression
10000000
1000000
100000
10000
1000
100
10
1
Brain total
Heart
Liver
Pancreas
PBMC
Lung
Breast
Ovary
Kidney
Testis
Spleen
Stomach
Colon
Lymph Node
Endometrium
Normal
SCC
Adeno
LC
Lung
Stomach
Esophagus
Cancer

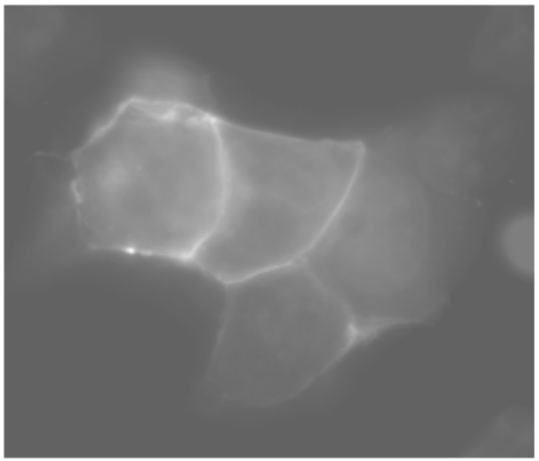
Fig. 25



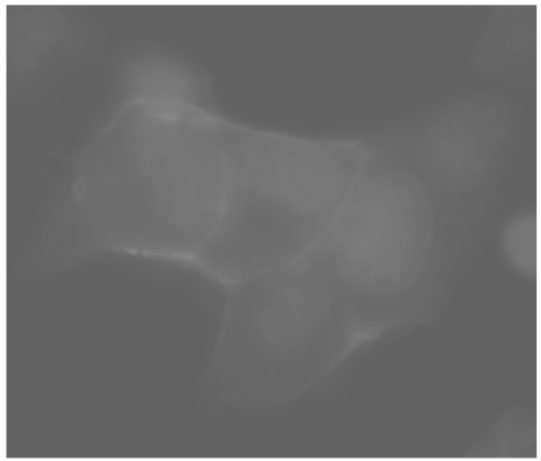
A.



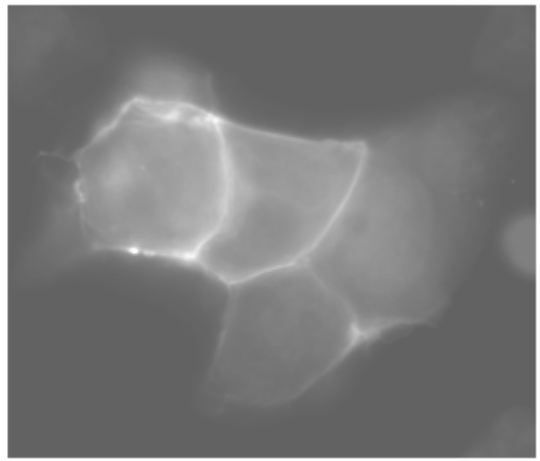
B.



A.



B.



C.

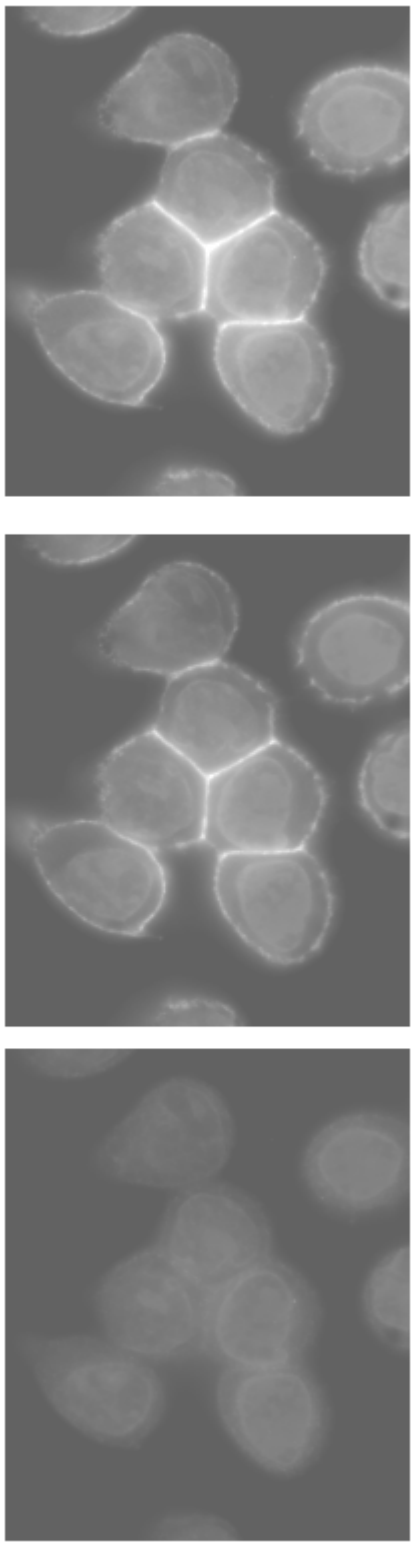


Fig. 26

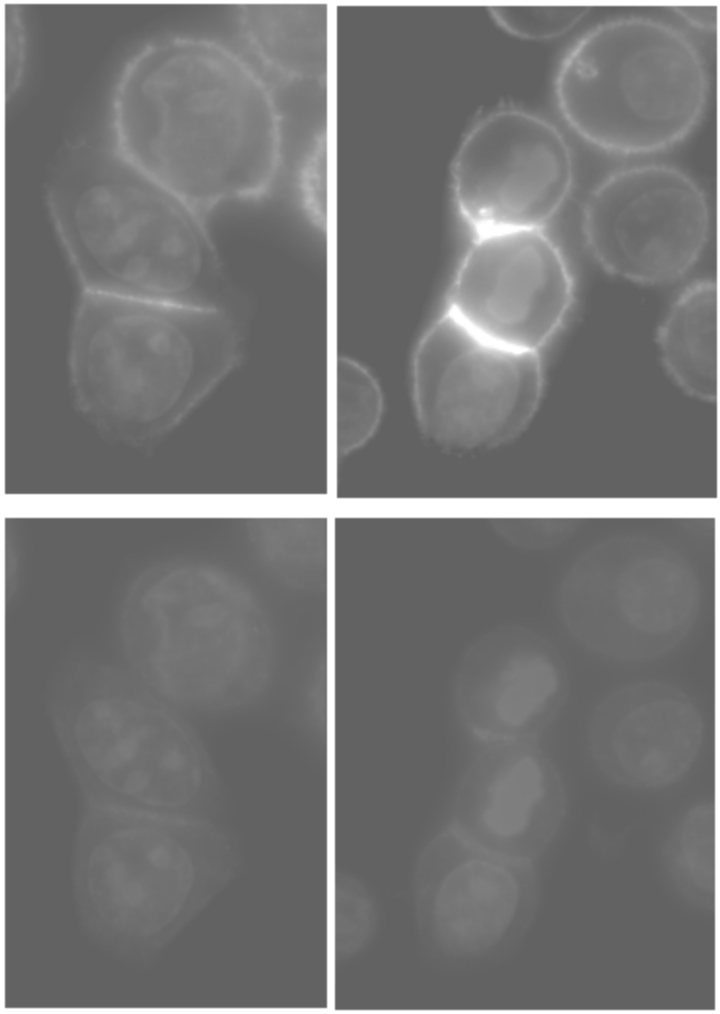


Fig. 27

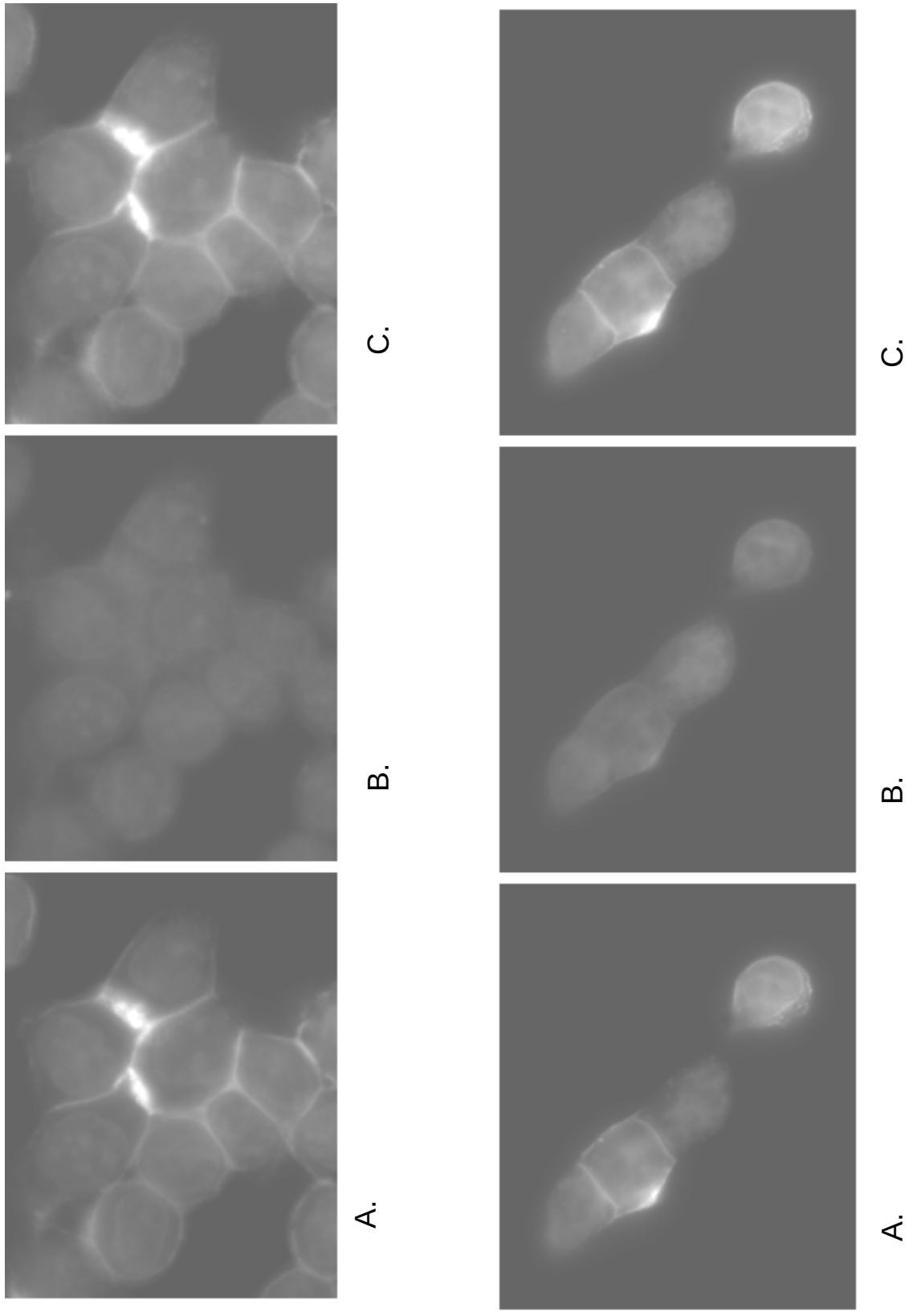


Fig. 28

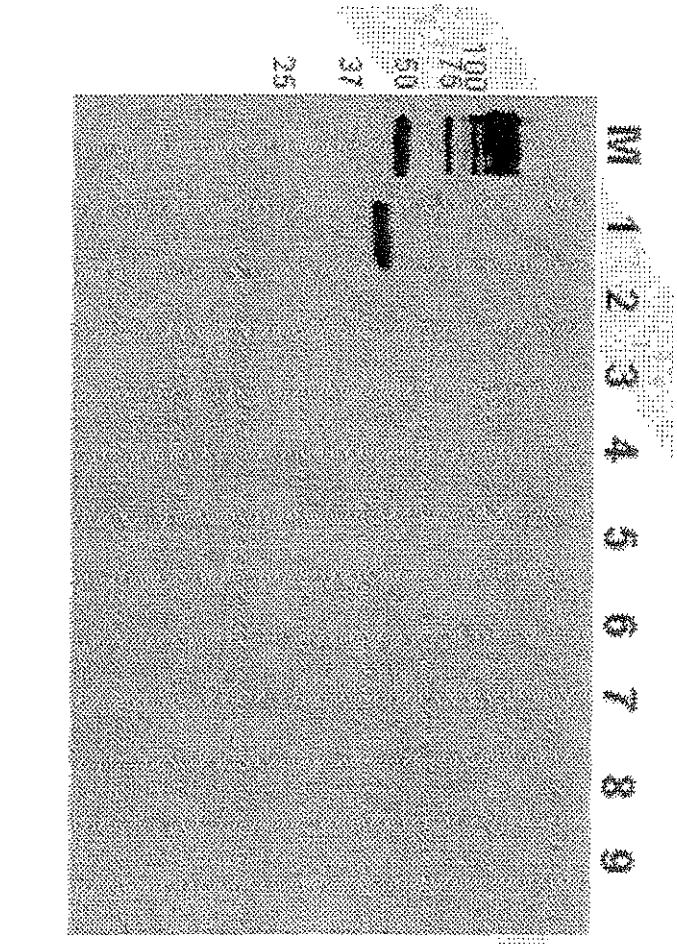


Fig. 29

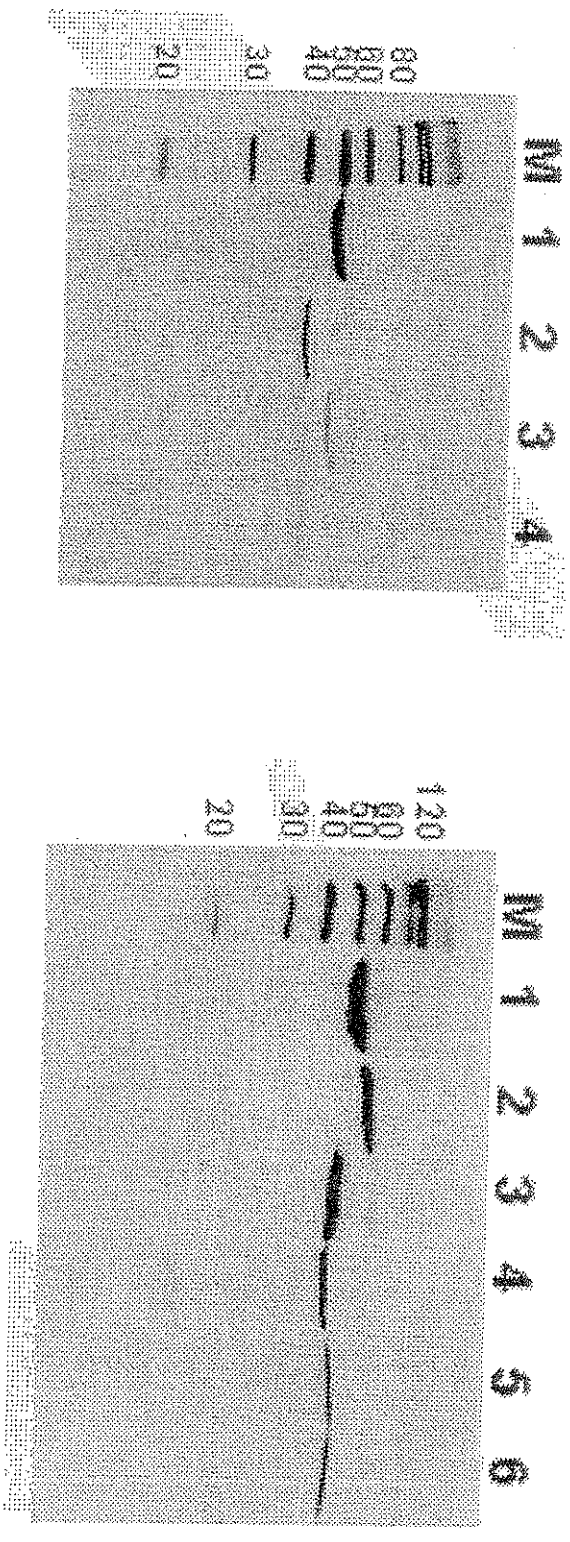


Fig. 30

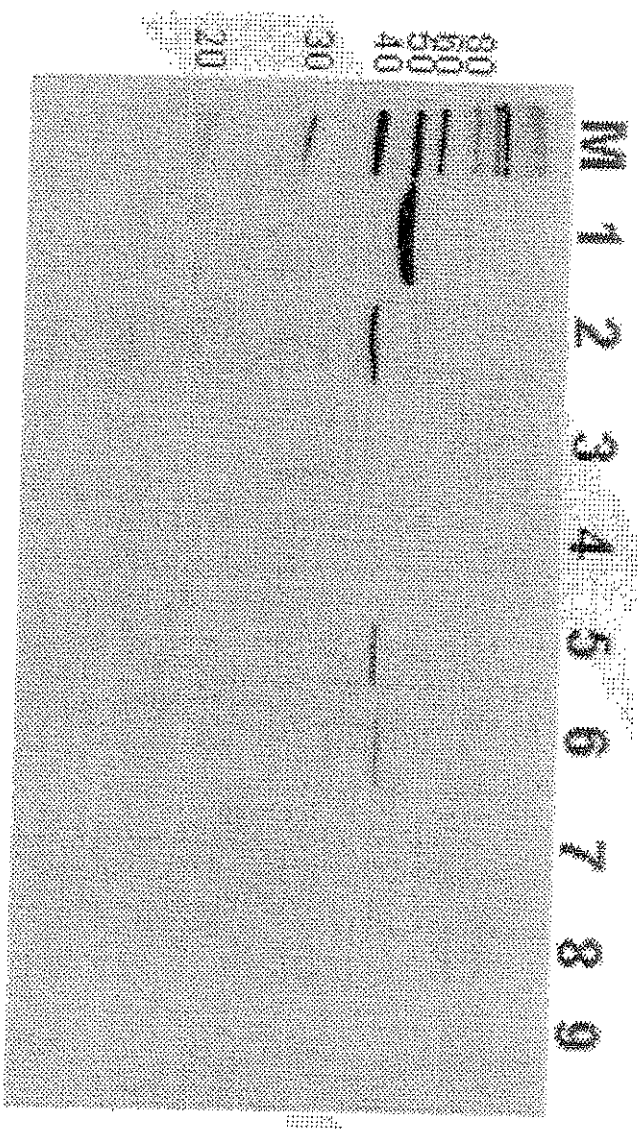
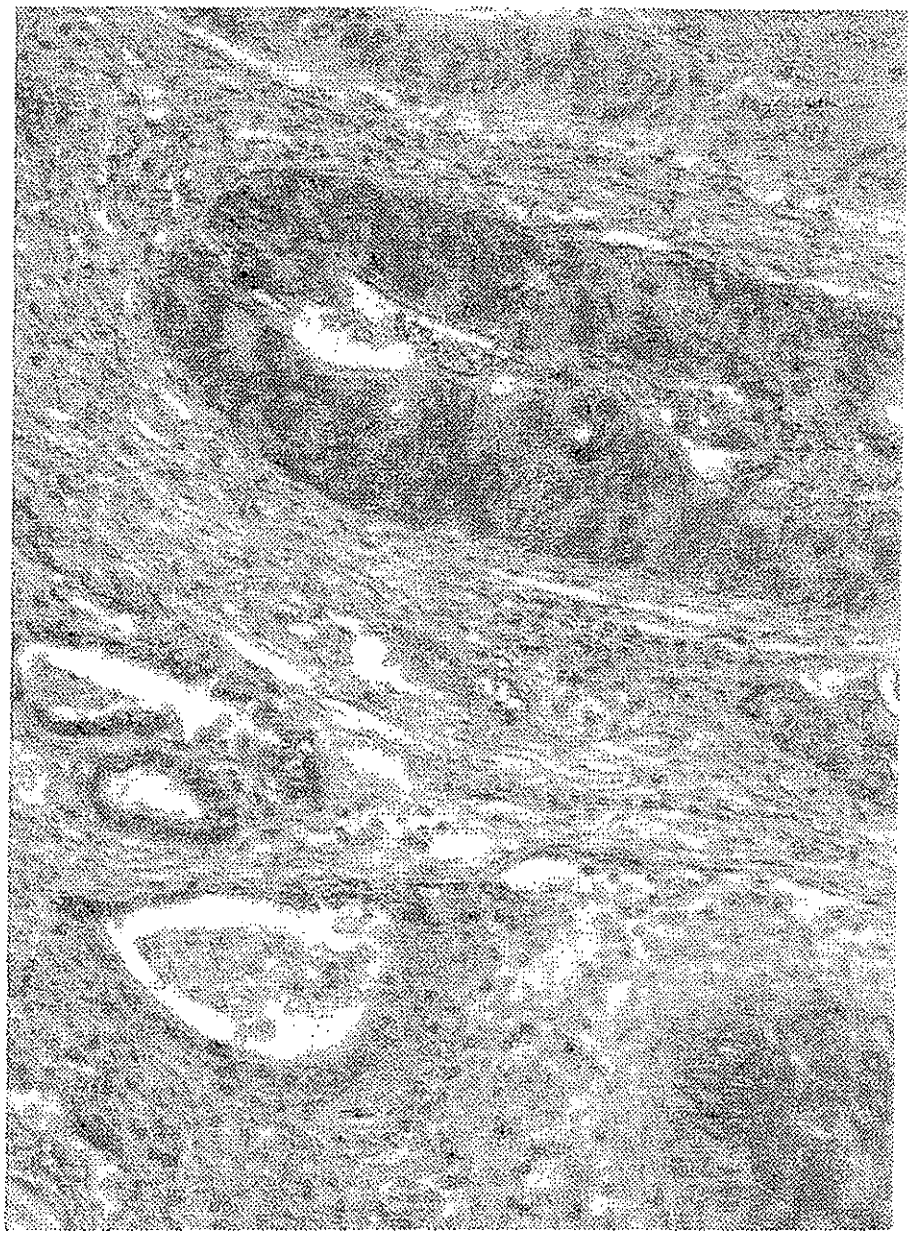
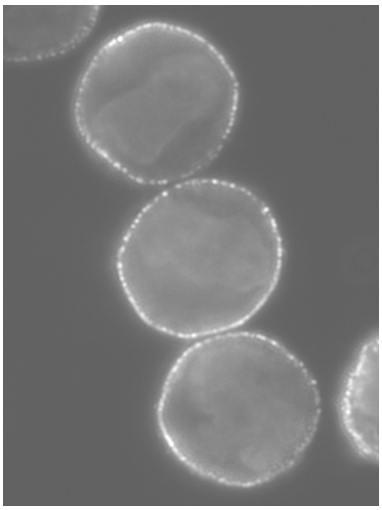


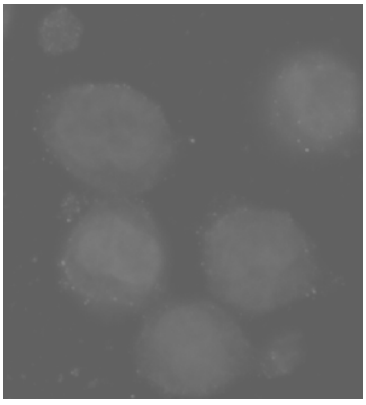
Fig. 31

Fig. 32





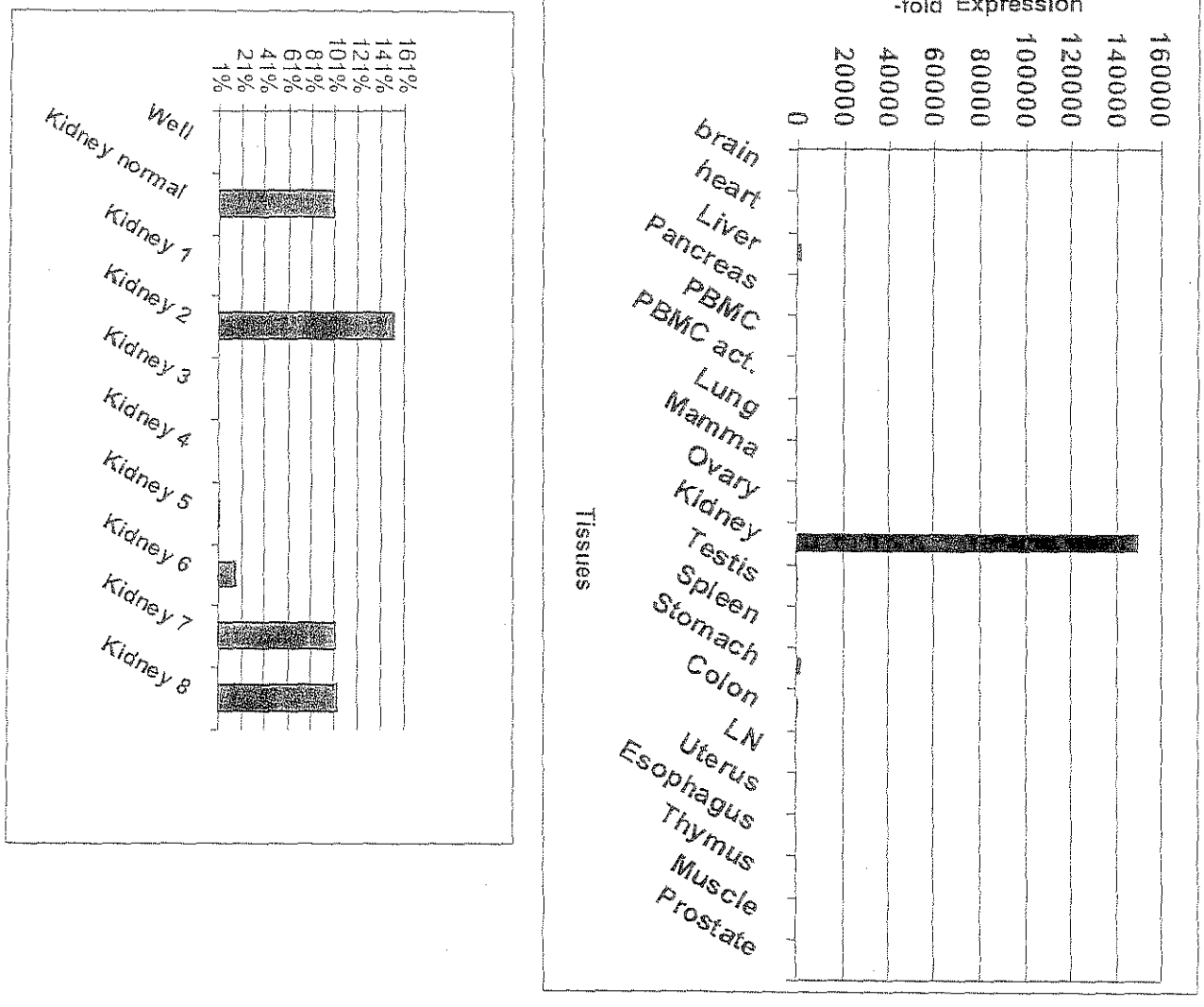
B.



A.

Fig. 33

Fig. 34


A
-fold Expression
0
20000
40000
60000
80000
100000
120000
140000
160000
brain
heart
Liver
Pancreas
PBMC
PBMC act.
Lung
Mamma
Ovary
Kidney
Testis
Spleen
Stomach
Colon
LN
Uterus
Esophagus
Thymus
Muscle
Prostate
Tissues
B
Well
Kidney normal
Kidney 1
Kidney 2
Kidney 3
Kidney 4
Kidney 5
Kidney 6
Kidney 7
Kidney 8
1%
21%
41%
61%
81%
101%
121%
141%
161%

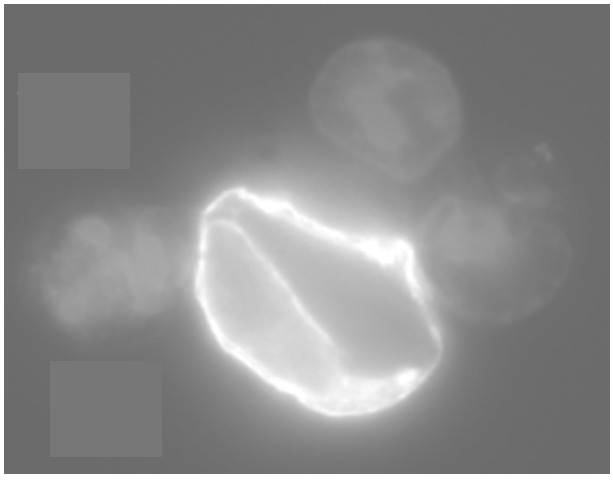
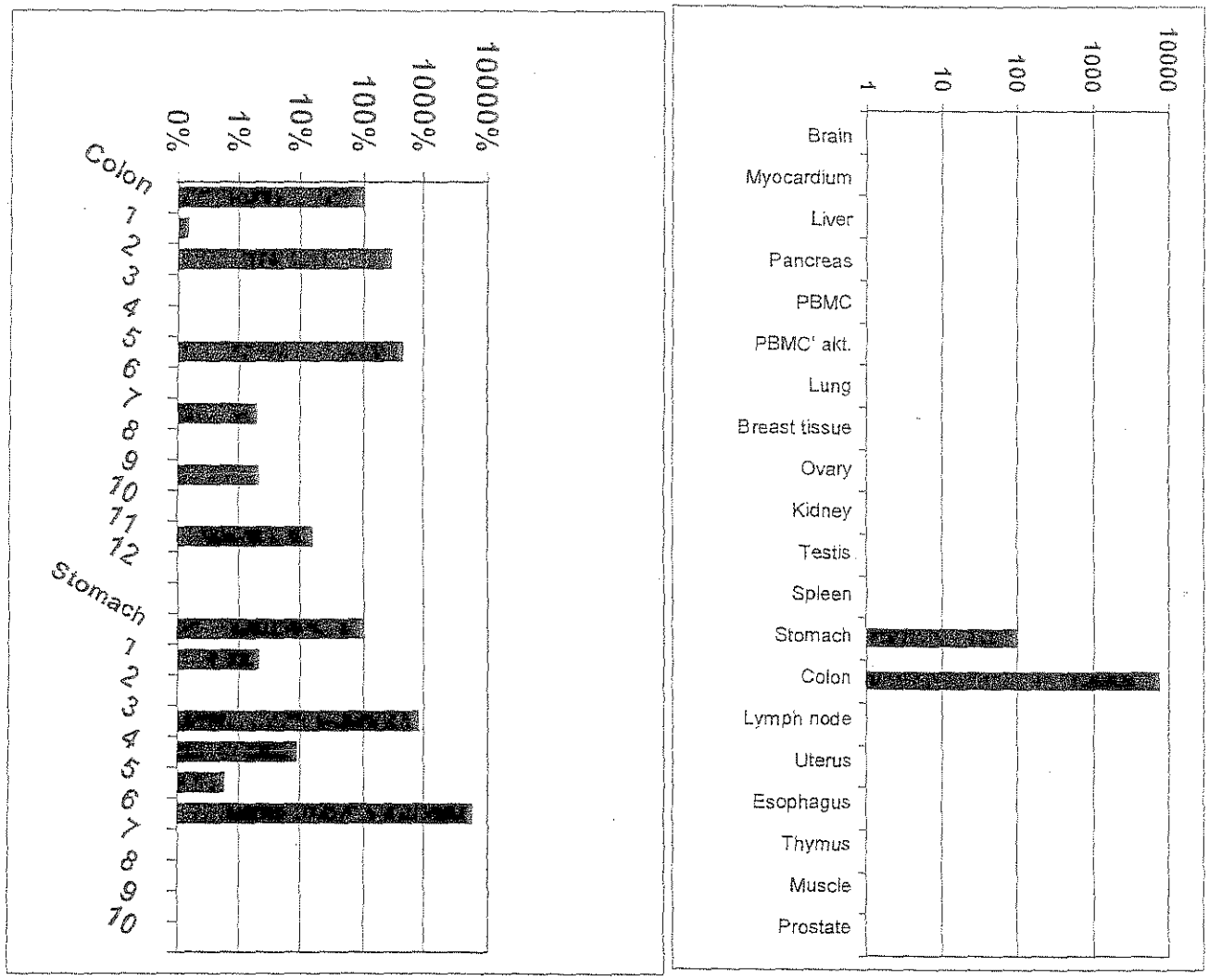


Fig. 35

Fig. 36


A
1
10
100
1000
10000
Brain
Myocardium
Liver
Pancreas
PBMC
PBMC' akt.
Lung
Breast tissue
Ovary
Kidney
Testis
Spleen
Stomach
Colon
Lymph node
Uterus
Esophagus
Thymus
Muscle
Prostate
B
0%
1%
10%
100%
1000%
10000%
Colon
1
2
3
4
5
6
7
8
9
10
11
12
Stomach
1
2
3
4
5
6
7
8
9
10

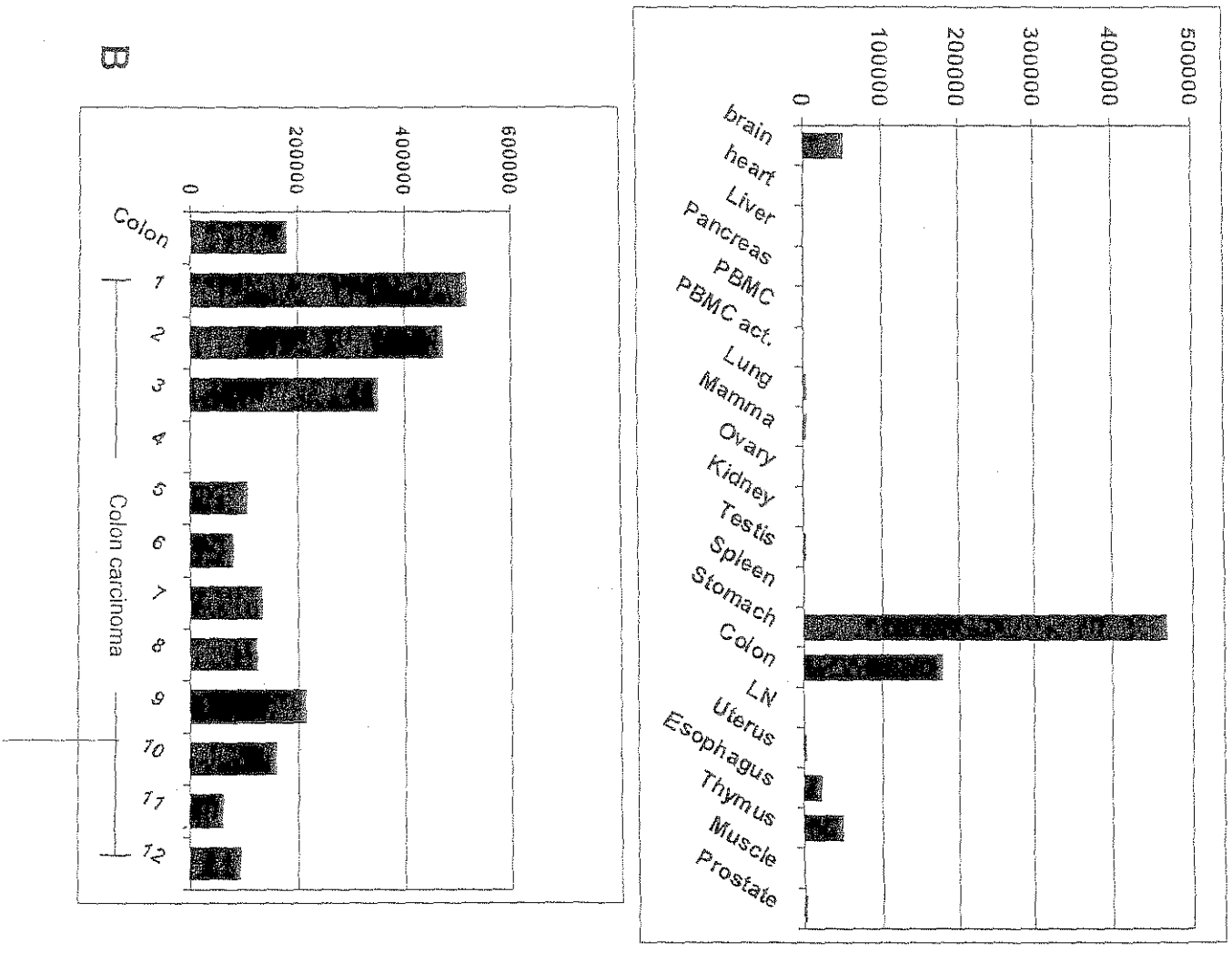

A
0
100000
200000
300000
400000
500000
brain
heart
Liver
Pancreas
PBMC
PBMC act.
Lung
Mamma
Ovary
Kidney
Testis
Spleen
Stomach
Colon
LN
Uterus
Esophagus
Thymus
Muscle
Prostate
B
0
200000
400000
600000
Colon
1
2
3
4
5
6
7
8
9
10
11
12
Colon carcinoma

Fig. 37

Fig. 38

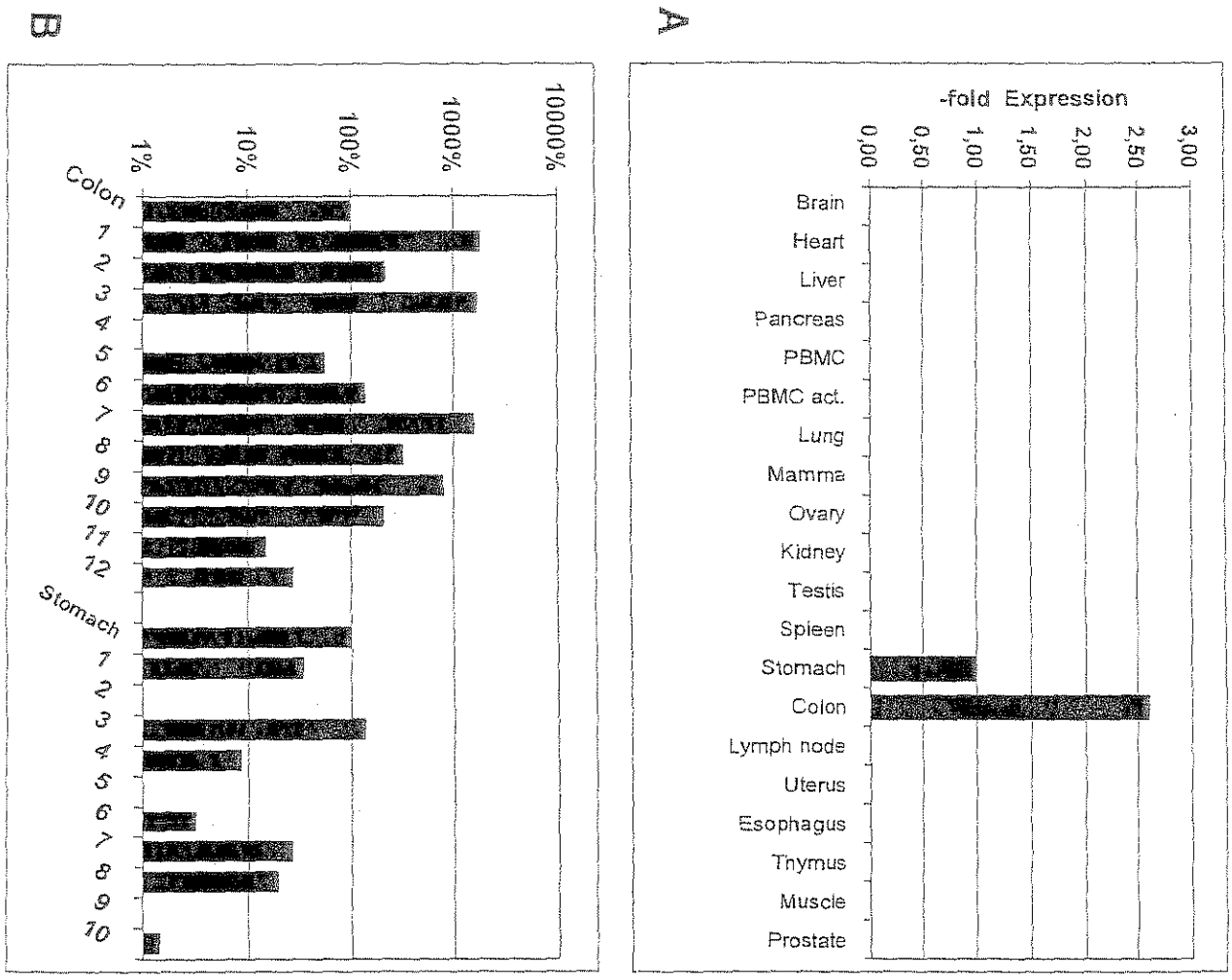
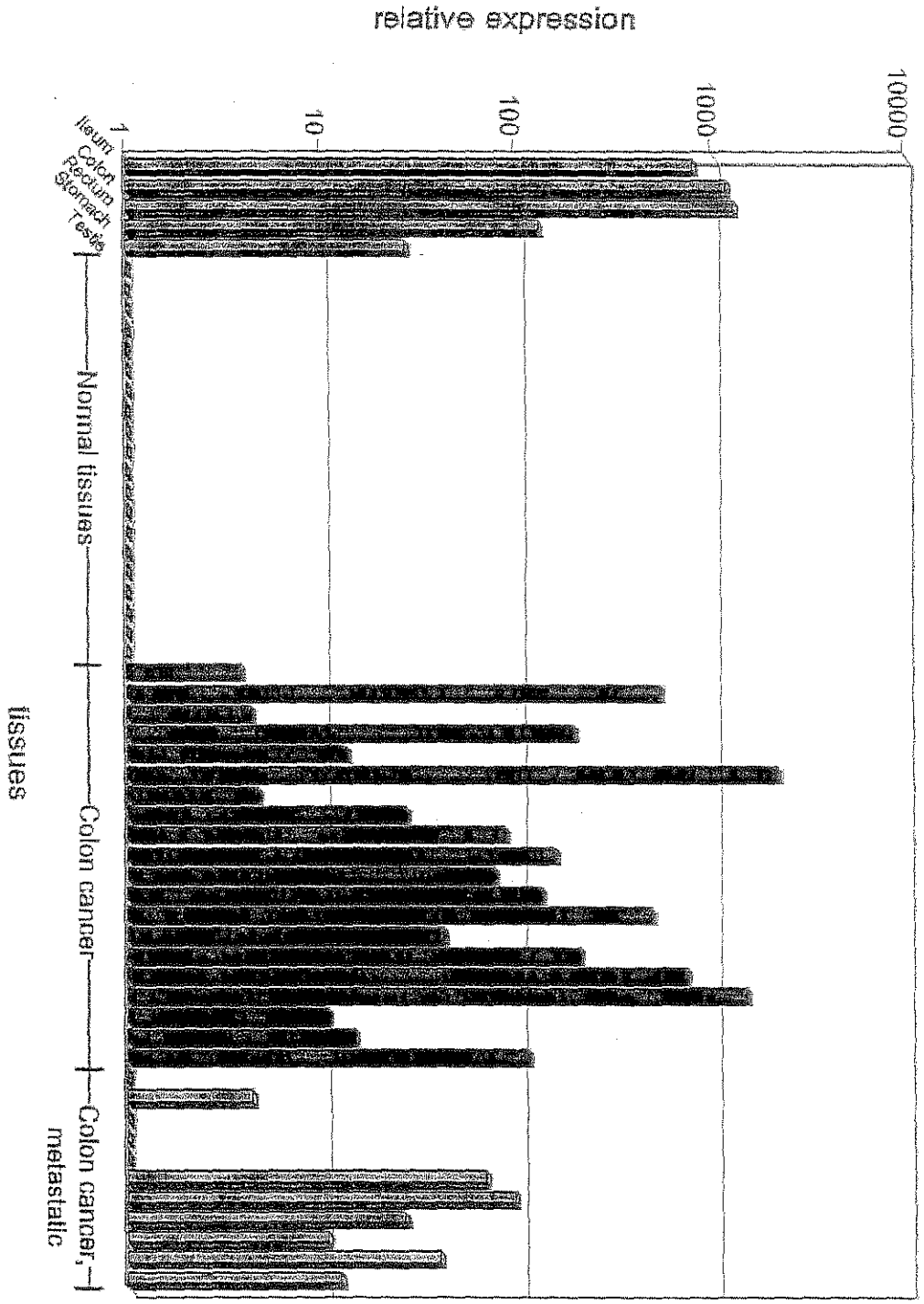

A
-fold Expression
0,00
0,50
1,00
1,50
2,00
2,50
3,00
Brain
Heart
Liver
Pancreas
PBMC
PBMC act.
Lung
Mamma
Ovary
Kidney
Testis
Spleen
Stomach
Colon
Lymph node
Uterus
Esophagus
Thymus
Muscle
Prostate
B
1%
10%
100%
1000%
10000%
Colon
1
2
3
4
5
6
7
8
9
10
11
12
Stomach
1
2
3
4
5
6
7
8
9
10

Fig. 39


relative expression
1
10
100
1000
10000
Ileum
Colon
Rectum
Stomach
Testis
Normal tissues
Colon cancer
Colon cancer, metastatic
tissues

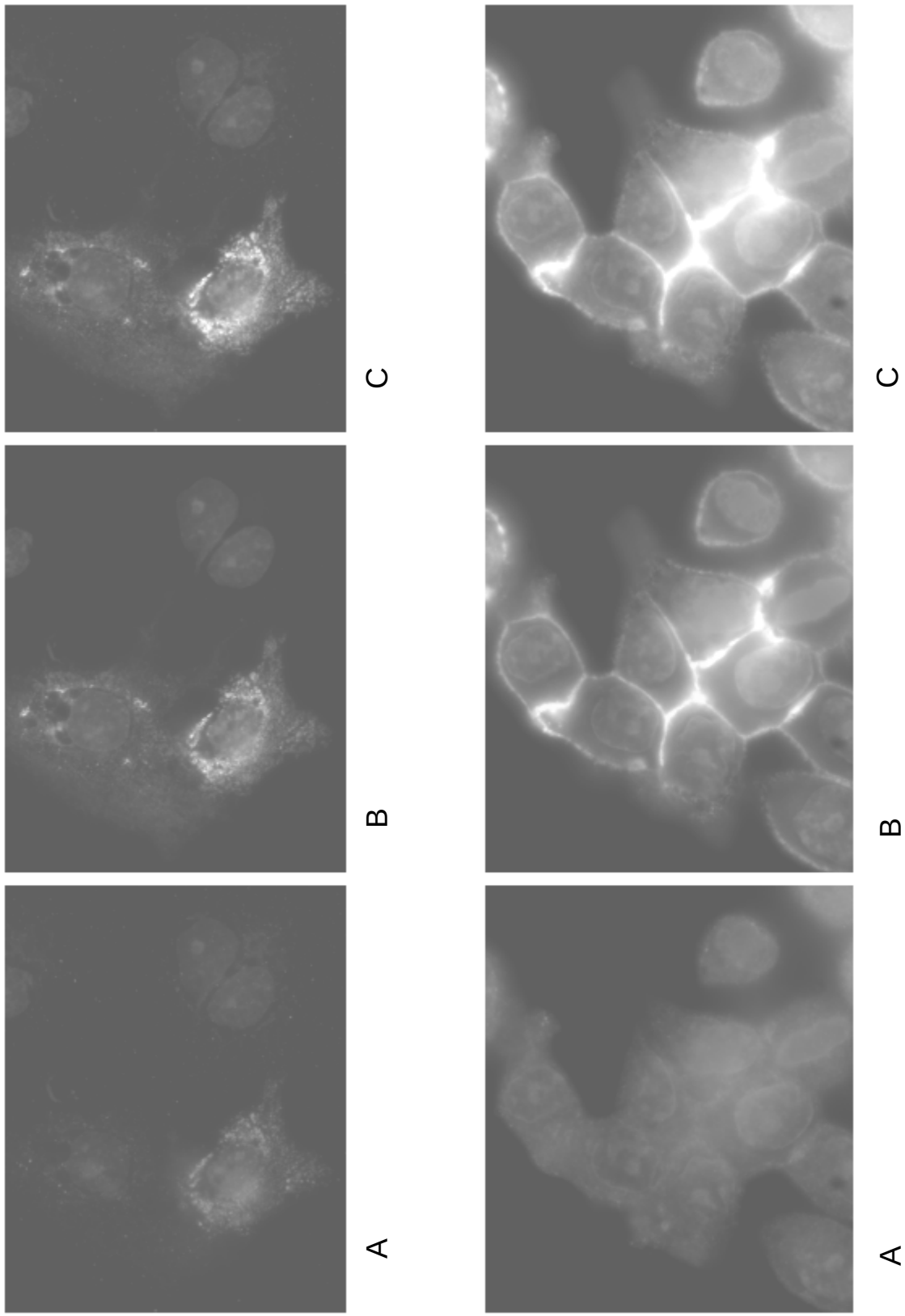


Fig. 40

Fig. 41

ID	Sequence
#1	caggccagagtcccagctgtcctggactctgctgtggggaagggctgatgcaggtgtgga gtcaaatgtgggtgcctcctgcagccgggtgccaggaggggtggaggggccaccctgggc tttgtccgggagcctggtcttcccgtccttgggctgacaggtgctgctgcctctgagccc tccctgctaagagctgtgtgctgggtaaggctggtggccctttgggctccctgtccagga tttgtgctctggagggtagggcttgctgggctggggactggaggggaacgtggagctcct tctgcctcctttcctgccccatgacagcaggcagatcccaggagagaagagctcaggaga tgggaagaggatctgtccaggggttagacctcaagggtgacttggagttctttacggcac ccatgctttctttgaggagttttgtgtttgtgggtgtggggtcggggctcacctcctccc acatccctgcccagaggtgggcagagtgggggcagtgccttgctcccctgctcgctctc tgctgacctccggctccctgtgctgccccaggaccatgaatggcacctacaacacctgtg gctccagcgacctcacctggcccccagcgatcaagctgggcttctacgcctacttgggcg tcctgctggtgctaggcctgctgctcaacagcctggcgctctgggtgttctgctgccgca tgcagcagtggacggagacccgcatctacatgaccaacctggcggtggccgacctctgcc tgctgtgcaccttgcccttcgtgctgcactccctgcgagacacctcagacacgccgctgt gccagctctcccagggcatctacctgaccaacaggtacatgagcatcagcctggtcacgg ccatcgccgtggaccgctatgtggccgtgcggcacccgctgcgtgcccgcgggctgcggt cccccaggcaggctgcggccgtgtgcgcggtcctctgggtgctggtcatcggctccctgg tggctcgctggctcctggggattcaggagggcggcttctgcttcaggagcacccggcaca atttcaactccatggcgttcccgctgctgggatttctacctgccctggccgtggtggtct tctgctccctgaaggtggtgactgccctggcccagaggccacccaccgacgtggggcagg cagaggccacccgcaaggctgcccgcatggtctgggccaacctcctggtgttcgtggtct gcttcctgcccctgcacgtggggctgacagtgcgcctcgcagtgggctggaacgcctgtg ccctcctggagacgatccgtcgcgccctgtacataaccagcaagctctcagatgccaact gctgcctggacgccatctgctactactacatggccaaggagttccaggaggcgtctgcac tggccgtggctcccagtgctaaggcccacaaaagccaggactctctgtgcgtgaccctcg cctaagaggcgtgctgtgggcgctgtgggccaggtctcgggggctccgggaggtgctgcc tgccaggggaagctggaaccagtagcaaggagcccgggatcagccctgaactcactgtgt attctcttggagccttgggtgggcagggacggcccaggtacctgctctcttgggaagaga gagggacagggacaagggcaagaggactgaggccagagcaaggccaatgtcagagacccc cgggatggggcctcacacttgccacccccagaaccagctcacctggccagagtgggttcc tgctggccagggtgcagccttgatgacacctgccgctgcccctcggggctggaataaaac tccccacccagagtc
#2	ATGAAGACGTTGCTGTTGGACTTGGCTTTGTGGTCACTGCTCTTCCAGCCCGGGTGGCTGTCCTTTAGTT CCCAGGTGAGTCAGAACTGCCACAATGGCAGCTATGAAATCAGCGTCCTGATGATGGGCAACTCAGCCTT TGCAGAGCCCCTGAAAAACTTGGAAGATGCGGTGAATGAGGGGCTGGAAATAGTGAGAGGACGTCTGCAA AATGCTGGCCTAAATGTGACTGTGAACGCTACTTTCATGTATTCGGATGGTCTGATTCATAACTCAGGCG ACTGCCGGAGTAGCACCTGTGAAGGCCTCGACCTACTCAGGAAAATTTCAAATGCACAACGGATGGGCTG TGTCCTCATAGGGCCCTCATGTACATACTCCACCTTCCAGATGTACCTTGACACAGAATTGAGCTACCCC ATGATCTCAGCTGGAAGTTTTGGATTGTCATGTGACTATAAAGAAACCTTAACCAGGCTGATGTCTCCAG CTAGAAAGTTGATGTACTTCTTGGTTAACTTTTGGAAAACCAACGATCTGCCCTTCAAAACTTATTCCTG GAGCACTTCGTATGTTTACAAGAATGGTACAGAAACTGAGGACTGTTTCTGGTACCTTAATGCTCTGGAG GCTAGCGTTTCCTATTTCTCCCACGAACTCGGCTTTAAGGTGGTGTTAAGACAAGATAAGGAGTTTCAGG ATATCTTAATGGACCACAACAGGAAAAGCAATGTGATTATTATGTGTGGTGGTCCAGAGTTCCTCTACAA GCTGAAGGGTGACCGAGCAGTGGCTGAAGACATTGTCATTATTCTAGTGGATCTTTTCAATGACCAGTAC TTGGAGGACAATGTCACAGCCCCTGACTATATGAAAAATGTCCTTGTTCTGACGCTGTCTCCTGGGAATT CCCTTCTAAATAGCTCTTTCTCCAGGAATCTATCACCAACAAAACGAGACTTTGCTCTTGCCTATTTGAA TGGAATCCTGCTCTTTGGACATATGCTGAAGATATTTCTTGAAAATGGAGAAAATATTACCACCCCCAAA TTTGCTCATGCTTTCAGGAATCTCACTTTTGAAGGGTATGACGGTCCAGTGACCTTGGATGACTGGGGGG ATGTTGACAGTACCATGGTGCTTCTGTATACCTCTGTGGACACCAAGAAATACAAGGTTCTTTTGACCTA TGATACCCACGTAAATAAGACCTATCCTGTGGATATGAGCCCCACATTCACTTGGAAGAACTCTAAACTT CCTAATGATATTACAGGCCGGGGCCCTCAGATCCTGATGATTGCAGTCTTCACCCTCACTGGAGCTGTGG TGCTGCTCCTGCTCGTCGCTCTCCTGATGCTCAGAAAATATAGAAAAGATTATGAACTTCGTCAGAAAAA ATGGTCCCACATTCCTCCTGAAAATATCTTTCCTCTGGAGACCAATGAGACCAATCATGTTAGCCTCAAG ATCGATGATGACAAAAGACGAGATACAATCCAGAGACTACGACAGTGCAAATACGACAAAAAGCGAGTGA TTCTCAAAGATCTCAAGCACAATGATGGTAATTTCACTGAAAAACAGAAGATAGAATTGAACAAGTTGCT TCAGATTGACTATTACAACCTGACCAAGTTCTACGGCACAGTGAAACTTGATACCATGATCTTCGGGGTG ATAGAATACTGTGAGAGAGGATCCCTCCGGGAAGTTTTAAATGACACAATTTCCTACCCTGATGGCACAT TCATGGATTGGGAGTTTAAGATCTCTGTCTTGTATGACATTGCTAAGGGAATGTCATATCTGCACTCCAG TAAGACAGAAGTCCATGGTCGTCTGAAATCTACCAACTGCGTAGTGGACAGTAGAATGGTGGTGAAGATC

Fig. 41 (continued)

	ACTGATTTTGGCTGCAATTCCATTTTACCTCCAAAAAAGGACCTGTGGACAGCTCCAGAGCACCTCCGCC AAGCCAACATCTCTCAGAAAGGAGATGTGTACAGCTATGGGATCATCGCACAGGAGATCATTCTGCGGAA AGAAACCTTCTACACTTTGAGCTGTCGGGACCGGAATGAGAAGATTTTCAGAGTGGAAAATTCCAATGGA ATGAAACCCTTCCGCCCAGATTTATTCTTGGAAACAGCAGAGGAAAAAGAGCTAGAAGTGTACCTACTTG TAAAAAACTGTTGGGAGGAAGATCCAGAAAAGAGACCAGATTTCAAAAAAATTGAGACTACACTTGCCAA GATATTTGGACTTTTTCATGACCAAAAAAATGAAAGCTATATGGATACCTTGATCCGACGTCTACAGCTA TATTCTCGAAACCTGGAACATCTGGTAGAGGAAAGGACACAGCTGTACAAGGCAGAGAGGGACAGGGCTG ACAGACTTAACTTTATGTTGCTTCCAAGGCTAGTGGTAAAGTCTCTGAAGGAGAAAGGCTTTGTGGAGCC GGAACTATATGAGGAAGTTACAATCTACTTCAGTGACATTGTAGGTTTCACTACTATCTGCAAATACAGC ACCCCCATGGAAGTGGTGGACATGCTTAATGACATCTATAAGAGTTTTGACCACATTGTTGATCATCATG ATGTCTACAAGGTGGAAACCATCGGTGATGCGTACATGGTGGCTAGTGGTTTGCCTAAGAGAAATGGCAA TCGGCATGCAATAGACATTGCCAAGATGGCCTTGGAAATCCTCAGCTTCATGGGGACCTTTGAGCTGGAG CATCTTCCTGGCCTCCCAATATGGATTCGCATTGGAGTTCACTCTGGTCCCTGTGCTGCTGGAGTTGTGG GAATCAAGATGCCTCGTTATTGTCTATTTGGAGATACGGTCAACACAGCCTCTAGGATGGAATCCACTGG CCTCCCTTTGAGAATTCACGTGAGTGGCTCCACCATAGCCATCCTGAAGAGAACTGAGTGCCAGTTCCTT TATGAAGTGAGAGGAGAAACATACTTAAAGGGAAGAGGAAATGAGACTACCTACTGGCTGACTGGGATGA AGGACCAGAAATTCAACCTGCCAACCCCTCCTACTGTGGAGAATCAACAGCGTTTGCAAGCAGAATTTTC AGACATGATTGCCAACTCTTTACAGAAAAGACAGGCAGCAGGGATAAGAAGCCAAAAACCCAGACGGGTA GCCAGCTATAAAAAAGGCACTCTGGAATACTTGCAGCTGAATACCACAGACAAGGAGAGCACCTATTTTT AA
#3	ATGAAGACGTTGCTGTTGGACTTGGCTTTGTGGTCACTGCTCTTCCAGCCCGGGTGGCTGTCCTTTAGTT CCCAGGTGAGTCAGAACTGCCACAATGGCAGCTATGAAATCAGCGTCCTGATGATGGGCAACTCAGCCTT TGCAGAGCCCCTGAAAAACTTGGAAGATGCGGTGAATGAGGGGCTGGAAATAGTGAGAGGACGTCTGCAA AATGCTGGCCTAAATGTGACTGTGAACGCTACTTTCATGTATTCGGATGGTCTGATTCATAACTCAGGCG ACTGCCGGAGTAGCACCTGTGAAGGCCTCGACCTACTCAGGAAAATTTCACCTTGA
#4	ATGAAGACGTTGCTGTTGGACTTGGCTTTGTGGTCACTGCTCTTCCAGCCCGGGTGGCTGTCCTTTAGTT CCCAGGTGAGTCAGAACTGCCACAATGGCAGCTATGAAATCAGCGTCCTGATGATGGGCAACTCAGCCTT TGCAGAGCCCCTGAAAAACTTGGAAGATGCGGTGAATGAGGGGCTGGAAATAGTGAGAGGACGTCTGCAA AATGCTGGCCTAAATGTGACTGTGAACGCTACTTTCATGTATTCGGATGGTCTGATTCATAACTCAGGCG ACTGCCGGAGTAGCACCTGTGAAGGCCTCGACCTACTCAGGAAAATTTCAAATGCACAACGGATGGGCTG TGTCCTCATAGGGCCCTCATGTACATACTCCACCTTCCAGATGTACCTTGACACAGAATTGAGCTACCCC ATGATCTCAGCTGGAAGTTTTGGATTGTCATGTGACTATAAAGAAACCTTAACCAGGCTGATGTCTCCAG CTAGAAAGTTGATGTACTTCTTGGTTAACTTTTGGAAAACCAACGATCTGCCCTTCAAAACTTATTCCTG GAGCACTTCGTATGTTTACAAGAATGGTACAGAAACTGAGGACTGTTTCTGGTACCTTAATGCTCTGGAG GCTAGCGTTTCCTATTTCTCCCACGAACTCGGCTTTAAGGTGGTGTTAAGACAAGATAAGGAGTTTCAGG ATATCTTAATGGACCACAACAGGAAAAGCAATGTGACCAGTACTTGGAGGACAATGTCACAGCCCCTGAC TATATGA
#5	ATGAAGACGTTGCTGTTGGACTTGGCTTTGTGGTCACTGCTCTTCCAGCCCGGGTGGCTGTCCTTTAGTT CCCAGGTGAGTCAGAACTGCCACAATGGCAGCTATGAAATCAGCGTCCTGATGATGGGCAACTCAGCCTT TGCAGAGCCCCTGAAAAACTTGGAAGATGCGGTGAATGAGGGGCTGGAAATAGTGAGAGGACGTCTGCAA AATGCTGGCCTAAATGTGACTGTGAACGCTACTTTCATGTATTCGGATGGTCTGATTCATAACTCAGGCG ACTGCCGGAGTAGCACCTGTGAAGGCCTCGACCTACTCAGGAAAATTTCAAATGCACAACGGATGGGCTG TGTCCTCATAGGGCCCTCATGTACATACTCCACCTTCCAGATGTACCTTGACACAGAATTGAGCTACCCC ATGATCTCAGCTGGAAGTTTTGGATTGTCATGTGACTATAAAGAAACCTTAACCAGGCTGATGTCTCCAG CTAGAAAGTTGATGTACTTCTTGGTTAACTTTTGGAAAACCAACGATCTGCCCTTCAAAACTTATTCCTG GAGCACTTCGTATGTTTACAAGAATGGTACAGAAACTGAGGACTGTTTCTGGTACCTTAATGCTCTGGAG GCTAGCGTTTCCTATTTCTCCCACGAACTCGGCTTTAAGGTGGTGTTAAGACAAGATAAGGAGTTTCAGG ATATCTTAATGGACCACAACAGGAAAAGCAATGTGATTATTATGTGTGGTGGTCCAGAGTTCCTCTACAA GCTGAAGGGTGACCGAGCAGTGGCTGAAGACATTGTCATTATTCTAGTGGATCTTTTCAATGACCAGTAC TTGGAGGACAATGTCACAGCCCCTGACTATATGAAAAATGTCCTTGTTCTGACGCTGTCTCCTGGGAATT CCCTTCTAAATAGCTCTTTCTCCAGGAATCTATCACCAACAAAACGAGACTTTGCTCTTGCCTATTTGAA TGGAATCCTGCTCTTTGGACATATGCTGAAGATATTTCTTGAAAATGGAGAAAATATTACCACCCCCAAA TTTGCTCATGCTTTCAGGAATCTCACTTTTGAAGGGTATGACGGTCCAGTGACCTTGGATGACTGGGGGG ATGTTGACAGTACCATGGTGCTTCTGTATACCTCTGTGGACACCAAGAAATACAAGGTTCTTTTGACCTA TGATACCCACGTAAATAAGACCTATCCTGTGGATATGAGCCCCACATTCACTTGGAAGAACTCTAAACTT CCTAATGATATTACAGGCCGGGGCCCTCAGATCCTGATGATTGCAGTCTTCACCCTCACTGGAGCTGTGG TGCTGCTCCTGCTCGTCGCTCTCCTGATGCTCAGAAAATATAGAAAAGATTATGAACTTCGTCAGAAAAA ATGGTCCCACATTCCTCCTGAAAATATCTTTCCTCTGGAGACCAATGAGACCAATCATGTTAGCCTCAAG ATCGATGATGACAAAAGACGAGATACAATCCAGAGACTACGACAGTGCAAATACGACAAAAAGCGAGTGA

Fig. 41 (continued)

	TTCTCAAAGATCTCAAGCACAATGATGGTAATTTCACTGAAAAACAGAAGATAGAATTGAACAAGATTGA CTATTACAACCTGACCAAGTTCTACGGCACAGTGAAACTTGATACCATGATCTTCGGGGTGATAGAATAC TGTGAGAGAGGATCCCTCCGGGAAGTTTTAAATGACACAATTTCCTACCCTGATGGCACATTCATGGATT GGGAGTTTAAGATCTCTGTCTTGTATGACATTGCTAAGGGAATGTCATATCTGCACTCCAGTAAGACAGA AGTCCATGGTCGTCTGAAATCTACCAACTGCGTAGTGGACAGTAGAATGGTGGTGAAGATCACTGATTTT GGCTGCAATTCCATTTTACCTCCAAAAAAGGACCTGTGGACAGCTCCAGAGCACCTCCGCCAAGCCAACA TCTCTCAGAAAGGAGATGTGTACAGCTATGGGATCATCGCACAGGAGATCATTCTGCGGAAAGAAACCTT CTACACTTTGAGCTGTCGGGACCGGAATGAGAAGATTTTCAGAGTGGAAAATTCCAATGGAATGAAACCC TTCCGCCCAGATTTATTCTTGGAAACAGCAGAGGAAAAAGAGCTAGAAGTGTACCTACTTGTAAAAAACT GTTGGGAGGAAGATCCAGAAAAGAGACCAGATTTCAAAAAAATTGAGACTACACTTGCCAAGATATTTGG ACTTTTTCATGACCAAAAAAATGAAAGCTATATGGATACCTTGATCCGACGTCTACAGCTATATTCTCGA AACCTGGAACATCTGGTAGAGGAAAGGACACAGCTGTACAAGGCAGAGAGGGACAGGGCTGACAGACTTA ACTTTATGTTGCTTCCAAGGCTAGTGGTAAAGTCTCTGAAGGAGAAAGGCTTTGTGGAGCCGGAACTATA TGAGGAAGTTACAATCTACTTCAGTGACATTGTAGGTTTCACTACTATCTGCAAATACAGCACCCCCATG GAAGTGGTGGACATGCTTAATGACATCTATAAGAGTTTTGACCACATTGTTGATCATCATGATGTCTACA AGGTGGAAACCATCGGTGATGCGTACATGGTGGCTAGTGGTTTGCCTAAGAGAAATGGCAATCGGCATGC AATAGACATTGCCAAGATGGCCTTGGAAATCCTCAGCTTCATGGGGACCTTTGAGCTGGAGCATCTTCCT GGCCTCCCAATATGGATTCGCATTGGAGTTCACTCTGGTCCCTGTGCTGCTGGAGTTGTGGGAATCAAGA TGCCTCGTTATTGTCTATTTGGAGATACGGTCAACACAGCCTCTAGGATGGAATCCACTGGCCTCCCTTT GAGAATTCACGTGAGTGGCTCCACCATAGCCATCCTGAAGAGAACTGAGTGCCAGTTCCTTTATGAAGTG AGAGGAGAAACATACTTAAAGGGAAGAGGAAATGAGACTACCTACTGGCTGACTGGGATGAAGGACCAGA AATTCAACCTGCCAACCCCTCCTACTGTGGAGAATCAACAGCGTTTGCAAGCAGAATTTTCAGACATGAT TGCCAACTCTTTACAGAAAAGACAGGCAGCAGGGATAAGAAGCCAAAAACCCAGACGGGTAGCCAGCTAT AAAAAAGGCACTCTGGAATACTTGCAGCTGAATACCACAGACAAGGAGAGCACCTATTTTTAA
#6	ggggacactttgtatggcaagtggaaccactggcttggtg gattttgctagatttttctgatttttaaactcctgaaaaatatcccagataactgtcatgaagctggtaacta tcttcct gctggtgaccatcagcctttgtagttactctgctactgcc ttcctcatcaacaaagtgccccttcctgttgacaagttggcacctttacctctggacaacattcttccctttta tggatcc attaaagcttcttctgaaaactctgggcatttctgttgag caccttgtggaggggctaaggaagtgtgtaaatgagctgggaccagaggcttctgaagctgtgaagaaactgc tggaggc gctatcacacttggtgtgacatcaagataaagagcggagg tggatggggatggaagatgatgctcctatcctccctgcctgaaacctgttctaccaattatagatcaaatgcc ctaaaatgtagtgacccgtgaaaaggacaaataaagcaatgaatactaaaaaaaaaaaaaaaaaaaa aaaaaaaaaa
#7	ATGGCCGTGACTGCCTGTCAGGGCTTGGGGTTCGTGGTTTCACTGATTGGGATTGCGGGCATCATTGCTG CCACCTGCATGGACCAGTGGAGCACCCAAGACTTGTACAACAACCCCGTAACAGCTGTTTTCAACTACCA GGGGCTGTGGCGCTCCTGTGTCCGAGAGAGCTCTGGCTTCACCGAGTGCCGGGGCTACTTCACCCTGCTG GGGCTGCCAGCCATGCTGCAGGCAGTGCGAGCCCTGATGATCGTAGGCATCGTCCTGGGTGCCATTGGCC TCCTGGTATCCATCTTTGCCCTGAAATGCATCCGCATTGGCAGCATGGAGGACTCTGCCAAAGCCAACAT GACACTGACCTCCGGGATCATGTTCATTGTCTCAGGTCTTTGTGCAATTGCTGGAGTGTCTGTGTTTGCC AACATGCTGGTGACTAACTTCTGGATGTCCACAGCTAACATGTACACCGGCATGGGTGGGATGGTGCAGA CTGTTCAGACCAGGTACACATTTGGTGCGGCTCTGTTCGTGGGCTGGGTCGCTGGAGGCCTCACACTAAT TGGGGGTGTGATGATGTGCATCGCCTGCCGGGGCCTGGCACCAGAAGAAACCAACTACAAAGCCGTTTCT TATCATGCCTCAGGCCACAGTGTTGCCTACAAGCCTGGAGGCTTCAAGGCCAGCACTGGCTTTGGGTCCA ACACCAAAAACAAGAAGATATACGATGGAGGTGCCCGCACAGAGGACGAGGTACAATCTTATCCTTCCAA GCACGACTATGTGTAA
#8	tgcgccaccatggccgtgactgcctgtcagggcttggggttcgtggtttcactgattggg attgcgggcatcattgctgccacctgcatggaccagtggagcacccaagacttgtacaac aaccccgtaacagctgttttcaactaccaggggctgtggcgctcctgtgtccgagagagc
#9	MNGTYNTCGSSDLTWPPAIKLGFYAYLGVLLVLGLLLNSLALWVFCCRMQQWTETRIYMT NLAVADLCLLCTLPFVLHSLRDTSDTPLCQLSQGIYLTNRYMSISLVTAIAVDRYVAVRH PLRARGLRSPRQAAAVCAVLWVLVIGSLVARWLLGIQEGGFCFRSTRHNFNSMRFPLLGF

Fig. 41 (continued)

	YLPLAVVVFCSLKVVTALAQRPPTDVGQAEATRKAARMVWANLLVFVVCFLPLHVGLTVR LAVGWNACALLETIRRALYITSKLSDANCCLDAICYYYMAKEFQEASALAVAPRAKAHKS QDSLCVTLA
#10	MTAGRSQERRAQEMGRGSVQGLDLKGDLEFFTAPMLSLRSFVFVGVGSGLTSSHIPAQRWAEWGQCLAPPARS LLTSGSLCCPRTMNGTYNTCGSSDLTWPPAIKLGFYAYLGVLLVLGL LLNSLALWVFCCRMQQWTETRIYMTNLAVADLCLLCTLPFVLHSLRDTSDTPLCQLSQGI YLTNRYMSISLVTAIAVDRYVAVRHPLRARGLRSPRQAAAVCAVLWVLVIGSLVARWLLG IQEGGFCFRSTRHNFNSMAFPLLGFYLPLAVVVFCSLKVVTALAQRPPTDVGQAEATRKA ARMVWANLLVFVVCFLPLHVGLTVRLAVGWNACALLETIRRALYITSKLSDANCCLDAIC YYYMAKEFQEASALAVAPSAKAHKSQDSLCVTLA
#11	MKTLLLDLALWSLLFQPGWLSFSSQVSQNCHNGSYEISVLMMGNSAFAEPLKNLEDAVNEGLEIVRGRLQ NAGLNVTVNATFMYSDGLIHNSGDCRSSTCEGLDLLRKISNAQRMGCVLIGPSCTYSTFQMYLDTELSYP MISAGSFGLSCDYKETLTRLMSPARKLMYFLVNFWKTNDLPFKTYSWSTSYVYKNGTETEDCFWYLNALE ASVSYFSHELGFKVVLRQDKEFQDILMDHNRKSNVIIMCGGPEFLYKLKGDRAVAEDIVIILVDLFNDQY LEDNVTAPDYMKNVLVLTLSPGNSLLNSSFSRNLSPTKRDFALAYLNGILLFGHMLKIFLENGENITTPK FAHAFRNLTFEGYDGPVTLDDWGDVDSTMVLLYTSVDTKKYKVLLTYDTHVNKTYPVDMSPTFTWKNSKL PNDITGRGPQILMIAVFTLTGAVVLLLLVALLMLRKYRKDYELRQKKWSHIPPENIFPLETNETNHVSLK IDDDKRRDTIQRLRQCKYDKKRVILKDLKHNDGNFTEKQKIELNKLLQIDYYNLTKFYGTVKLDTMIFGV IEYCERGSLREVLNDTISYPDGTFMDWEFKISVLYDIAKGMSYLHSSKTEVHGRLKSTNCVVDSRMVVKI TDFGCNSILPPKKDLWTAPEHLRQANISQKGDVYSYGIIAQEIILRKETFYTLSCRDRNEKIFRVENSNG MKPFRPDLFLETAEEKELEVYLLVKNCWEEDPEKRPDFKKIETTLAKIFGLFHDQKNESYMDTLIRRLQL YSRNLEHLVEERTQLYKAERDRADRLNFMLLPRLVVKSLKEKGFVEPELYEEVTIYFSDIVGFTTICKYS TPMEVVDMLNDIYKSFDHIVDHHDVYKVETIGDAYMVASGLPKRNGNRHAIDIAKMALEILSFMGTFELE HLPGLPIWIRIGVHSGPCAAGVVGIKMPRYCLFGDTVNTASRMESTGLPLRIHVSGSTIAILKRTECQFL YEVRGETYLKGRGNETTYWLTGMKDQKFNLPTPPTVENQQRLQAEFSDMIANSLQKRQAAGIRSQKPRRV ASYKKGTLEYLQLNTTDKESTYF*
#12	MKTLLLDLALWSLLFQPGWLSFSSQVSQNCHNGSYEISVLMMGNSAFAEPLKNLEDAVNEGLEIVRGRLQ NAGLNVTVNATFMYSDGLIHNSGDCRSSTCEGLDLLRKISP*
#13	MKTLLLDLALWSLLFQPGWLSFSSQVSQNCHNGSYEISVLMMGNSAFAEPLKNLEDAVNEGLEIVRGRLQ NAGLNVTVNATFMYSDGLIHNSGDCRSSTCEGLDLLRKISNAQRMGCVLIGPSCTYSTFQMYLDTELSYP MISAGSFGLSCDYKETLTRLMSPARKLMYFLVNFWKTNDLPFKTYSWSTSYVYKNGTETEDCFWYLNALE ASVSYFSHELGFKVVLRQDKEFQDILMDHNRKSNVTSTWRTMSQPLTI*
#14	MKTLLLDLALWSLLFQPGWLSFSSQVSQNCHNGSYEISVLMMGNSAFAEPLKNLEDAVNEGLEIVRGRLQ NAGLNVTVNATFMYSDGLIHNSGDCRSSTCEGLDLLRKISNAQRMGCVLIGPSCTYSTFQMYLDTELSYP MISAGSFGLSCDYKETLTRLMSPARKLMYFLVNFWKTNDLPFKTYSWSTSYVYKNGTETEDCFWYLNALE ASVSYFSHELGFKVVLRQDKEFQDILMDHNRKSNVIIMCGGPEFLYKLKGDRAVAEDIVIILVDLFNDQY LEDNVTAPDYMKNVLVLTLSPGNSLLNSSFSRNLSPTKRDFALAYLNGILLFGHMLKIFLENGENITTPK FAHAFRNLTFEGYDGPVTLDDWGDVDSTMVLLYTSVDTKKYKVLLTYDTHVNKTYPVDMSPTFTWKNSKL PNDITGRGPQILMIAVFTLTGAVVLLLLVALLMLRKYRKDYELRQKKWSHIPPENIFPLETNETNHVSLK IDDDKRRDTIQRLRQCKYDKKRVILKDLKHNDGNFTEKQKIELNKIDYYNLTKFYGTVKLDTMIFGVIEY CERGSLREVLNDTISYPDGTFMDWEFKISVLYDIAKGMSYLHSSKTEVHGRLKSTNCVVDSRMVVKITDF GCNSILPPKKDLWTAPEHLRQANISQKGDVYSYGIIAQEIILRKETFYTLSCRDRNEKIFRVENSNGMKP FRPDLFLETAEEKELEVYLLVKNCWEEDPEKRPDFKKIETTLAKIFGLFHDQKNESYMDTLIRRLQLYSR NLEHLVEERTQLYKAERDRADRLNFMLLPRLVVKSLKEKGFVEPELYEEVTIYFSDIVGFTTICKYSTPM EVVDMLNDIYKSFDHIVDHHDVYKVETIGDAYMVASGLPKRNGNRHAIDIAKMALEILSFMGTFELEHLP GLPIWIRIGVHSGPCAAGVVGIKMPRYCLFGDTVNTASRMESTGLPLRIHVSGSTIAILKRTECQFLYEV RGETYLKGRGNETTYWLTGMKDQKFNLPTPPTVENQQRLQAEFSDMIANSLQKRQAAGIRSQKPRRVASY KKGTLEYLQLNTTDKESTYF*
#15	MKLVTIFLLVTISLCSYSATAKLINKCPLPVDKLAPLPLDNILPFMDPLK LLLKTLGISVEHLVEGLRKCVNELGPEASEAVKKLLEALSHLV
#16	MAVTACQGLGFVVSLIGIAGIIAATCMDQWSTQDLYNNPVTAVFNYQGLWRSCVRESSGFTECRGYFTLL

Fig. 41 (continued)

	GLPAMLQAVRALMIVGIVLGAIGLLVSIFALKCIRIGSMEDSAKANMTLTSGIMFIVSGLCAIAGVSVFA NMLVTNFWMSTANMYTGMGGMVQTVQTRYTFGAALFVGWVAGGLTLIGGVMMCIACRGLAPEETNYKAVS YHASGHSVAYKPGGFKASTGFGSNTKNKKIYDGGARTEDEVQSYPSKHDYV*
#17	DQWSTQDLYN
#18	NNPVTAVFNYQ
#19	MAVTACQGLGFVVSLIGIAGIIAATCMDQWSTQDLYNNPVTAVFNYQ
#20	AGGTACATGAGCATCAGCCTG
#21	GCAGCAGTTGGCATCTGAGAG
#22	GCAATAGACATTGCCAAGATG
#23	AACGCTGTTGATTCTCCACAG
#24	GGATCCTCCTTTAGTTCCCAGGTGAGTCAGAAC
#25	TGCTCTGGAGGCTAGCGTTTC
#26	ACCAATCATGTTAGCCTCAAG
#27	AGCTATGGGATCATCGCACAG
#28	CCTTTGAGCTGGAGCATCTTC
#29	CTTTCTAGCTGGAGACATCAG
#30	CACCATGGTACTGTCAACATC
#31	ATGTCATACAAGACAGAGATC
#32	TCTGCCTTGTACAGCTGTGTC
#33	TCTGTGGTATTCAGCTGCAAG
#34	TACTCAGGAAAATTTCACCTTG
#35	GACCACAACAGGAAAAGCAATGTGACC

Fig. 41 (continued)

#36	GATAGAATTGAACAAGATTGAC
#37	CAGCCTTTGTAGTTACTCTGC
#38	TGTCACACCAAGTGTGATAGC
#39	GGTTCGTGGTTTCACTGATTGGGATTGC
#40	CGGCTTTGTAGTTGGTTTCTTCTGGTG
#41	ctattgaagccacctgctcaggacaatgaaattcttcagttacattctggtttatcgccg atttctcttcgtggttttcactgtgttggttttactacctctgcccatcgtcctccacac caaggaagcagaatgtgcctacacactctttgtggtcgccacattttggctcacagaagc attgcctctgtcggtaacagctttgctacctagtttaatgttacccatgtttgggatcat gccttctaagaaggtggcatctgcttatttcaaggattttcacttactgctaattggagt tatctgtttagcaacatccatagaaaaatggaatttgcacaagagaattgctctgaaaat ggtgatgatggttggtgtaaatcctgcatggctgacgctggggttcatgagcagcactgc ctttttgtctatgtggctcagcaacacctcgacggctgccatggtgatgcccattgcgga ggctgtagtgcagcagatcatcaatgcagaagcagaggtcgaggccactcagatgactta cttcaacggatcaaccaaccacggactagaaattgatgaaagtgttaatggacatgaaat aaatgagaggaaagagaaaacaaaaccagttccaggatacaataatgatacagggaaaat ttcaagcaaggtggagttggaaaagaactcaggcatgagaaccaaatatcgaacaaagaa gggccacgtgacacgtaaacttacgtgtttgtgcattgcctactcttctaccattggtgg actgacaacaatcactggtacctccaccaacttgatctttgcagagtatttcaatacacg ctatcctgactgtcgttgcctcaactttggatcatggtttacgttttccttcccagctgc ccttatcattctactcttatcctggatctggcttcagtggctttttcctaggattcaattt taaggagatgttcaaatgtggcaaaaccaaaacagtccaacaaaaagcttgtgctgaggt gattaagcaagaataccaaaagcttgggccaataaggtatcaagaaattgtgaccttggt cctcttcattataatggctctgctatggtttagtcgagaccccggatttgttcctggttg gtctgcactttttttcagagtaccctggttttgctacagattcaactgttgctttacttat agggctgctattctttcttatcccagctaagacactgactaaaactacacctacaggaga aattgttgcttttgattactctccactgattacttggaaagaattccagtcattcatgcc ctgggatatagccattcttgttggtggagggtttgccctggcagatggttgtgaggagtc tggattatctaagtggataggaaataaattatctcctctgggttcattaccagcatggct aataattctgatatcttctttgatggtgacatctttaactgaggtagccagcaatccagc taccattacactctttctcccaatattatctccattggccgaagccattcatgtgaaccc tctttatattctgataccttctactctgtgtacttcatttgcattcctcctaccagtagc aaatccacccaatgctattgtcttttcatatggtcatctgaaagtcattgacatggttaa agctggacttggtgtcaacattgttggtgttgctgtggttatgcttggcatatgtacttg gattgtacccatgtttgacctctacacttacccttcgtgggctcctgctatgagtaatga gaccatgccataataagcacaaaatttctgactatcttgcggtaatttctggaagacatt aatgattgactgtaaaatgtggctctaaataactaatgacacacatttaaatcagttatg gtgtagctgctgcaattcccgtgaatacccgaaacctgctggtataactcagagtccata tttgttattgcagtgcaactaaagagcatctatgtgccttcatcaagaagcccatgtttt gagattttgctcatgaaccatctgcaacttgcttcatcataagaataatttataacttga ccttcaaagagattagagcatttgtttcatcttacagttggagttcaatgtaacatttta aatgcaatttattatttcagaaatttcccatgaaactaaaaatagaaaataagatataca agttaattcggtacttggataaatcatttctgcattgttgttccagagaatttgctgaga aatcaaagccatggtcatctggtgatgaagagaaaaggttaatctaaatgatatgtgcat ttcctcatttaaaaaatccaattggattattcttaatatatacatgtaatatgaaaattg agattgaagcactaattccaaaattatggctgaatatactaaataacagaaaagttacag ataagaatttatttctactgaactctatagttagtgtaatataattcatatttttatgat attggcacactgagaaattcattttgtagagctatggataaggcttgctatgatttgcac tattagtacagtatagttagaaaggaaagctgaacactataaaactattaacatattttc gtatatgagtaacaactttgcttaagtgtttatcttagttcagaaatacataatgtcata tgttaaaaataaagagatgtagaaatctaaatgaattatcactgtgtatacagacagaaa aatcacataactctggtgtgttaacattgcaatgaaaaaatgaaaaaaagaaggaaaaaa gaataagaatgaaaactgctgacgtattacaaaacagaaaaataaatgatttaaaatcaa

Fig. 41 (continued)

	atcaaaaagaaaaaaactaaacatttaaacaaaaatgggataagaatagtcttctagaag tgaggatgcgtaaaagaatgagtttccaattaccctgatgtgacaattacacattgtaga caggtagcaaaatatcacatacacccccaaaatatgtacaaatattatatatcaataaat aaatttttaaagagtaagtgctattggcattccaaaattcagctaaaggaaaaatgatca aaaacaaagtaaggtgcacagttagcaaaagatgcagatgttatatcacagcaattctca tgctaaaaatacaacaaaagacaaagcaaaaaataaacctttgcttttttttttttttt tttttttttgagacggagtctcgctctgtcgcccaggctggagtgcagtggcgggatct cggctcactgcaagctccgcctcccaggttcacgccattctcctgcctcagccaaacctt tgctatttttaatcttcgttggcactttccagctgttactgaccttgtcatttttgttc aaataagattatttacaaacttattcttgaaactaaatatagtaaagagggtttttaaaa taatatttaacatacgaattattaattggccatgttcattatttatctatgtttattaat gggccaatgcaaaaaatcatttttttcaaagaaaaatttgtccatgtaaagcttaaattat aatattgctgctttgtataactcttctatgtttattctattcatttgttcctttccctac catattttacacatgtatttataatctgtagtatttattacatttctgcttttttctagt cattcaatttatcactgctgaattgcatcagatcatggatgcatttttattatgaaaaaa taaaatgacttttcaaattaaaaaaaaaaaaaaa
#42	caggacaatgaaattcttcagttacattctggtttatcgccgatttctcttcgtggttttcactgtgttggtt ttactacctctgcccatcgtcctccacaccaaggaagcagaatgtgcctacacactctttgtggtcgccacat tttggctcacagaagcattgcctctgtcggtaacagctttgctacctagtttaatgttacccatgtttgggat catgccttctaagaaggtggcatctgcttatttcaaggattttcacttactgctaattggagttatctgttta gcaacatccatagaaaaatggaatttgcacaagagaattgctctgaaaatggtgatgatggttggtgtaaatc ctgcatggctgacgctggggttcatgagcagcactgccttttgtctatgtggctcagcaacacctcgacggc tgccatggtgatgcccattgcggaggctgtagtgcagcagatcatcaatgcagaagcagaggtcgaggccact cagatgacttacttcaacggatcaaccaaccacggactagaaattgatgaaagtgttaatggacatgaaataa atgagaggaaagagaaaacaaaaccagttccaggatacaataatgatacagggaaaatttcaagcaaggtgga gttggaaaagactgtttaactactgaaatgaagctattctcctgactaaacataactgaaaaaccattcatta aatg
#43	gccactcagatgacttacttcaacggatcaaccaaccacggactagaaattgatgaaagtgttaatggacatg aaataaatgagaggaaagagaaaacaaaaccagttccaggatacaataatgatacagggaaaatttcaagcaa ggtggagttggaaaagcactggaaacttgcagttcaagatggctccccatctcctctgtccattctgtatcg cagctagctgctcaaggaaaggagaaagtggaaggcatatgtacttagaaattattctattactttcctggat ttaagagtattcagattttctatttcaacatcaaacaattgcatttttaaaaagaaatttatgtgttccatgt caaatttagtagtgtgtggttgtttataatatttttcttatatctacttaatttctatagtatttatagttata tgtctttatttctaacatttttcttgtgcttttaaagattatttaaagattatttttaaataatctttatttc atttaaataaaatattttatttaagtct
#44	cacggactagaaattgatgaaagtgttaatggacatgaaataaatgagaggaaagagaaaacaaaaccagttc caggatacaataatgatacagggaaaatttcaagcaaggtggagttggaaaagaactcaggcatgagaaccaa atatcgaacaaagaagggccacgtgacacgtaaacttacgtgtttgtgcattgcctactcttctaccattggt ggactgacaacaatcactggtacctccaccaacttgatctttgcagagtatttcaatacattccatccacaca gaagaggagatcgtacaaggcatgtacaccaggaggcagaaatttgaggcatatcttggaactctgtctacca catcctgaacatcacacagtttccactcttgttgccttcaatcctgagaatgcatccaggagccattctgttt tatgtcaattactaattagatcatgtcacgttactaacttactacgttccaattagtccttattgcatttgta ataaaatccgcatactttcggactggctacaaggttatacatgat
#45	MKFFSYILVYRRFLFVVFTVLVLLPLPIVLHTKEAECAYTLFVV ATFWLTEALPLSVTALLPSLMLPMFGIMPSKKVASAYFKDFHLLLIGVICLATSIEKW NLHKRIALKMVMMVGVNPAWLTLGFMSSTAFLSMWLSNTSTAAMVMPIAEAVVQQIIN AEAEVEATQMTYFNGSTNHGLEIDESVNGHEINERKEKTKPVPGYNNDTGKISSKVEL EKNSGMRTKYRTKKGHVTRKLTCLCIAYSSTIGGLTTITGTSTNLIFAEYFNTRYPDC RCLNFGSWFTFSFPAALIILLLSWIWLQWLFLGFNFKEMFKCGKTKTVQQKACAEVIK QEYQKLGPIRYQEIVTLVLFIIMALLWFSRDPGFVPGWSALFSEYPGFATDSTVALLI GLLFFLIPAKTLTKTTPTGEIVAFDYSPLITWKEFQSFMPWDIAILVGGGFALADGCE ESGLSKWIGNKLSPLGSLPAWLIILISSLMVTSLTEVASNPATITLFLPILSPLAEAI HVNPLYILIPSTLCTSFAFLLPVANPPNAIVFSYGHLKVIDMVKAGLGVNIVGVAVVM LGICTWIVPMFDLYTYPSWAPAMSNETMP"

Fig. 41 (continued)

#46	RTMKFFSYILVYRRFLFVVFTVLVLLPLPIVLHTKEAECAYTLFVVATFWLTEALPLSVTALLPSLMLPMFGI MPSKKVASAYFKDFHLLLIGVICLATSIEKWNLHKRIALKMVMMVGVNPAWLTLGFMSSTAFLSMWLSNTSTA AMVMPIAEAVVQQIINAEAEVEATQMTYFNGSTNHGLEIDESVNGHEINERKEKTKPVPGYNNDTGKISSKVE LEKTV*
#47	ATQMTYFNGSTNHGLEIDESVNGHEINERKEKTKPVPGYNNDTGKISSKVELEKHWKLAVQDGSPSPSVHSVS QLAAQGKEKVEGICT*
#48	HGLEIDESVNGHEINERKEKTKPVPGYNNDTGKISSKVELEKNSGMRTKYRTKKGHVTRKLTCLCIAYSSTIG GLTTITGTSTNLIFAEYFNTFHPHRRGDRTRHVHQEAEI*
#49	CCAGCTTTAACCATGTCAATG
#50	CAGATGGTTGTGAGGAGTCTG
#51	TGCTAATGCTTTTGGTACAAATGGATGTGGAATATAATTGAATATTTTCTTGTTTAAGGGGAGCATGAAGAGG TGTTGAGGTTATGTCAAGCATCTGGCACAGCTGAAGGCAGATGGAAATATTTACAAGTACGCAATTTGAGACT AAGATATTGTTATCATTCTCCTATTGAAGACAAGAGCAATAGTAAAACACATCAGGTCAGGGGGTTAAAGACC TGTGATAAACCACTTCCGATAAGTTGGAAACGTGTGTCTATATTTTCATATCTGTATATATATAATGGTAAAG AAAGACACCTTCGTAACCCGCATTTTCCAAAGAGAGGAATCACAGGGAGATGTACAGCAATGGGGCCATTTAA GAGTTCTGTGTTCATCTTGATTCTTCACCTTCTAGAAGGGGCCCTGAGTAATTCACTCATTCAGCTGAACAAC AATGGCTATGAAGGCATTGTCGTTGCAATCGACCCCAATGTGCCAGAAGATGAAACACTCATTCAACAAATAA AGGACATGGTGACCCAGGCATCTCTGTATCTGTTTGAAGCTACAGGAAAGCGATTTTATTTCAAAAATGTTGC CATTTTGATTCCTGAAACATGGAAGACAAAGGCTGACTATGTGAGACCAAAACTTGAGACCTACAAAAATGCT GATGTTCTGGTTGCTGAGTCTACTCCTCCAGGTAATGATGAACCCTACACTGAGCAGATGGGCAACTGTGGAG AGAAGGGTGAAAGGATCCACCTCACTCCTGATTTCATTGCAGGAAAAAAGTTAGCTGAATATGGACCACAAGG TAAGGCATTTGTCCATGAGTGGGCTCATCTACGATGGGGAGTATTTGACGAGTACAATAATGATGAGAAATTC TACTTATCCAATGGAAGAATACAAGCAGTAAGATGTTCAGCAGGTATTACTGGTACAAATGTAGTAAAGAAGT GTCAGGGAGGCAGCTGTTACACCAAAAGATGCACATTCAATAAAGTTACAGGACTCTATGAAAAAGGATGTGA GTTTGTTCTCCAATCCCGCCAGACGGAGAAGGCTTCTATAATGTTTGCACAACATGTTGATTCTATAGTTGAA TTCTGTACAGAACAAAACCACAACAAAGAAGCTCCAAACAAGCAAAATCAAAAATGCAATCTCCGAAGCACAT GGGAAGTGATCCGTGATTCTGAGGACTTTAAGAAAACCACTCCTATGACAACACAGCCACCAAATCCCACCTT CTCATTGCTGCAGATTGGACAAAGAATTGTGTGTTTAGTCCTTGACAAATCTGGAAGCATGGCGACTGGTAAC CGCCTCAATCGACTGAATCAAGCAGGCCAGCTTTTCCTGCTGCAGACAGTTGAGCTGGGGTCCTGGGTTGGGA TGGTGACATTTGACAGTGCTGCCCATGTACAAAGTGAACTCATACAGATAAACAGTGGCAGTGACAGGGACAC ACTCGCCAAAAGATTACCTGCAGCAGCTTCAGGAGGGACGTCCATCTGCAGCGGGCTTCGATCGGCATTTACT GTGATTAGGAAGAAATATCCAACTGATGGATCTGAAATTGTGCTGCTGACGGATGGGGAAGACAACACTATAA GTGGGTGCTTTAACGAGGTCAAACAAAGTGGTGCCATCATCCACACAGTCGCTTTGGGGCCCTCTGCAGCTCA AGAACTAGAGGAGCTGTCCAAAATGACAGGAGGTTTACAGACATATGCTTCAGATCAAGTTCAGAACAATGGC CTCATTGATGCTTTTGGGGCCCTTTCATCAGGAAATGGAGCTGTCTCTCAGCGCTCCATCCAGCTTGAGAGTA AGGGATTAACCCTCCAGAACAGCCAGTGGATGAATGGCACAGTGATCGTGGACAGCACCGTGGGAAAGGACAC TTTGTTTCTTATCACCTGGACAACGCAGCCTCCCCAAATCCTTCTCTGGGATCCCAGTGGACAGAAGCAAGGT GGCTTTGTAGTGGACAAAAACACCAAAATGGCCTACCTCCAAATCCCAGGCATTGCTAAGGTTGGCACTTGGA AATACAGTCTGCAAGCAAGCTCACAAACCTTGACCCTGACTGTCACGTCCCGTGCGTCCAATGCTACCCTGCC TCCAATTACAGTGACTTCCAAAACGAACAAGGACACCAGCAAATTCCCCAGCCCTCTGGTAGTTTATGCAAAT ATTCGCCAAGGAGCCTCCCCAATTCTCAGGGCCAGTGTCACAGCCCTGATTGAATCAGTGAATGGAAAAACAG TTACCTTGGAACTACTGGATAATGGAGCAGGTGCTGATGCTACTAAGGATGACGGTGTCTACTCAAGGTATTT CACAACTTATGACACGAATGGTAGATACAGTGTAAAAGTGCGGGCTCTGGGAGGAGTTAACGCAGCCAGACGG AGAGTGATACCCCAGCAGAGTGGAGCACTGTACATACCTGGCTGGATTGAGAATGATGAAATACAATGGAATC CACCAAGACCTGAAATTAATAAGGATGATGTTCAACACAAGCAAGTGTGTTTCAGCAGAACATCCTCGGGAGG CTCATTTGTGGCTTCTGATGTCCCAAATGCTCCCATACCTGATCTCTTCCCACCTGGCCAAATCACCGACCTG AAGGCGGAAATTCACGGGGGCAGTCTCATTAATCTGACTTGGACAGCTCCTGGGGATGATTATGACCATGGAA CAGCTCACAAGTATATCATTCGAATAAGTACAAGTATTCTTGATCTCAGAGACAAGTTCAATGAATCTCTTCA AGTGAATACTACTGCTCTCATCCCAAAGGAAGCCAACTCTGAGGAAGTCTTTTTGTTTAAACCAGAAAACATT ACTTTTGAAAATGGCACAGATCTTTTCATTGCTATTCAGGCTGTTGATAAGGTCGATCTGAAATCAGAAATAT CCAACATTGCACGAGTATCTTTGTTTATTCCTCCACAGACTCCGCCAGAGACACCTAGTCCTGATGAAACGTC TGCTCCTTGTCCTAATATTCATATCAACAGCACCATTCCTGGCATTCACATTTTAAAAATTATGTGGAAGTGG ATAGGAGAACTGCAGCTGTCAATAGCCTAGGGCTGAATTTTTGTCAGATAAATAAAATAAATCATTCATCCTT TTTTTGATTATAAAATTTTCTAAAATGTATTTTAGACTTCCTGTAGGGGGCGATATACTAAATGTATATAGTA

Fig. 41 (continued)

	CATTTATACTAAATGTATTCCTGTAGGGGGCGATATACTAAATGTATTTTAGACTTCCTGTAGGGGGCGATAA AATAAAATGCTAAACAACTGGGTAAA
#52	AATTAAATTATGAGAATTAAAAAGACAACATTGAGCAGAGATGAAAAAGGAAGGGAGGAAAAGGTGGAAAAGA AAAGAAGACAAGAAGCGAGTAGTGGTCTCTAACTTGCTCTTTGAAGGATGGTCTCACAAAGAGAACCCCAACA GACATCATCGTGGGAATCAAATCAAGACCAGCAAGTACACCGTGTTGTCCTTCGTCCCCAAAAACATTTTTGA GCAGCTACACCGGTTTGCCAATCTCTATTTTGTGGGCATTGCGGTTCTGAATTTTATCCCTGTGGTCAATGCT TTCCAGCCTGAGGTGAGCATGATACCAATCTGTGTTATCCTGGCAGTCACTGCCATCAAGGACGCTTGGGAAG ACCTCCGGAGGTACAAATCGGATAAAGTCATCAATAACCGAGAGTGCCTCATCTACAGCAGAAAAGAGCAGAC CTATGTGCAGAAGTGCTGGAAGGATGTGCGTGTGGGAGACTTCATCCAAATGAAATGCAATGAGATTGTCCCA GCAGACATACTCCTCCTTTTTTCCTCTGACCCCAATGGGATATGCCATCTGGAAACTGCCAGCTTGGATGGAG AGACAAACCTCAAGCAAAGACGTGTCGTGAAGGGCTTCTCACAGCAGGAGGTACAGTTCGAACCAGAGCTTTT CCACAATACCATCGTGTGTGAGAAACCCAACAACCACCTCAACAAATTTAAGGGTTATATGGAGCATCCTGAC CAGACCAGGACTGGCTTTGGCTGTGAGAGTCTTCTGCTTCGAGGCTGCACCATCAGAAACACCGAGATGGCTG TTGGCATTGTCATCTATGCAGGCCATGAGACGAAAGCCATGCTGAACAACAGTGGCCCCCGGTACAAACGCAG CAAGATTGAGCGGCGCATGAATATAGACATCTTCTTCTGCATTGGGATCCTCATCCTCATGTGCCTTATTGGA GCTGTAGGTCACAGCATCTGGAATGGGACCTTTGAAGAACACCCTCCCTTCGATGTGCCAGATGCCAATGGCA GCTTCCTTCCCAGTGCCCTTGGGGGCTTCTACATGTTCCTCACAATGATCATCCTGCTCCAGGTGCTGATCCC CATCTCTTTGTATGTCTCCATTGAGCTGGTGAAGCTCGGGCAAGTGTTCTTCTTGAGCAATGACCTTGACCTG TATGATGAAGAGACCGATTTATCCATTCAATGTCGAGCCCTCAACATCGCAGAGGACTTGGGCCAGATCCAGT ACATCTTCTCCGATAAGACGGGGACCCTGACAGAGAACAAGATGGTGTTCCGACGTTGCACCATCATGGGCAG CGAGTATTCTCACCAAGAAAATGGTATAGAAGCTCCCAAGGGCTCCATCCCTCTTTCTAAAAGGAAATACCCT GCTCTCCTAAGAAACGAGGAGATAAAAGACATTCTCCTGGCTCTCTTAGAGGCTGTGTGGCATTTCCACAAGT TGCTTCCTGTATCCCTGTGGTCTTCCTTGTCACAGATCAGGGCTGTTCCAATTACTTGTAAACTTTCATTTGT TTACAAAGGTTAGAAGTTATCCCATATGTGGTTCCCCTTCAGCTGATCTTTGTCTGGTGCCAGACAAAGCACT TTATGAGACGAGTTTTTTATCTGTCAGCAATGGATTGGAGACATTTCCCAATTGTGTGCCAGTCACACAACCA AGGCTTAGGAATTTCTCAGGCCACCTTACCTGACATGTCAGGGCAGGTCTGTGTCTAGGTGCATGGTCAGATT TAATACATCCAGAAGATGTCTTCTATTCTAACAGATCTCTTAGCTTGTCACTGAGGCAAAGTTTTGATTTAGG AGATAGGGCTATAAAATGCCTGGACTGTTACCTTGCATGGACTGAATATGACTCATAAAACTGATCTGATTCC TTCAGCCATCATCTGCCCAACTTGGTTCCCCTCCCCACCCCCCCACAACACACACACACACTTTCTAAGAAAA GAAAAGAAATTCTTTTTTTTCAATACTTTAAGTTCTGGGATACATGTGCAGAATGTGCAGGTTTGTTACATAG GTATACATGTGTCATGGTGGTTTGCAGCACCCACCAACCCATCATCTACCTTAGGTATTTCTCCTAATGCTAT CCCTCCCCTAGCCCCCAACCCCCCGATGGGCTCCAGTGTGTGATGTTCCCCTCCATGTCCATGTGTTCTCATT GTTCAATTCCCACTTATGAGTGAGAACATGCAGTATTTGGTTTTCTGTTCTTGTGTTAGTTTGCTGATGGTTT CCTGTTCATCCGTGTCCCTGCAAAGGACATGAACTCATCCTTTTTTATGGCTGCATAATATTCCATGGTGTAT ATGTGCCACATTTTCTTTATCCAGTCTATCGCTGATGGGCACTGGGGTTGGTTCCAAGTCTTTGCTATTGTGA ACAGTGCTGCAATAAACTTACATGTGCATGTGTCTTTAGTAGAATGATTTATAATCCTTTGGGTATATACCCA GTAATGGGATTGCTGGTCAAATGGTATTTCTGGTTCTAGATCCTTGAGGAATCTTTGTCTTCCACAATGGTTG AACTAATTTGTACTCCCACCAACAGTGTAAAAGTATTCCTGTTTCTCTACATCCTCTTCAGCATCTGTTGTGT CCTGACATTTTAATGATCACTATTCTCACTGGCGTGAGATGTTATCTCATTGTGGTTTTGATTTGCATTTCTC TAATGACCAGTAATGATGAGCTTTTTTTCATATGTTTGTTGGCTGCATAAATGTCTTCTTTTGAGAAGTGTCT GTTCATATCCTTCACCCATTTTTTGAAGAAAACAAACTCTTAAGAGAGCAGTATTCATTCTTTTGAGTGTGAG GGATGGAGAAAGAGAAAGATGGAGAGAGTATTATAAGCAGCTGTATCCCCTTTGCCATGGTGATAGCAGACCA TTCACATGGGAGCTTCTGGTCTCTTTGTAATAATAATAAGAGCCACATTACCAGTACTTAGAGTATGCTAGTT ATTTTAACACATTGTATCATTAAATCTTCAAAACATCCCTATGAGTTAGAAACCTAAAAAAAAAAAAAAAAAA A
#53	CTCATTTTGATGTCTAGAATCAGGGGATCCAGGATCATCACCAAGGTCATTTTCCCAGGTATGGAGGGGTCTT TCTGCTTCTTTCTTGTCATGCACAGCTGCTGAGGAAGGGGCTGGGAGTAAAGACAGTGAAATGGGGAGGAGGA GTCCATTCAAACCGAGAAACAAAGTGTTTGGTTTTTCTTACCCCTGGTGTAGAAGCTACCAACCTTTTCCAAG AAAGAGGGCCTGGCCCCCTTCTCGGGTCTGGCTGGGTGCCTGCTGTGCCTCTCTGGCCTCCCCTCCGAAGGGC ACCATTCCCTCGGGTGAGTACTACCGGCCTGCACCGTCTTCCAGTGGGGACAGCCTGAGAAGAGAGTCTGGGG CCTTACTTCAGTACCTTCCTTCACTGGCCTCACCCTGTGCAAATCATGCCACACGCTGCAGCCTCCTTTTCCC TATCTATAAAATAAAAATGACCCTGCTCTATCTCACTGGGCTGGCAAGAACACACTGTTGTTGCCTTGCAGAC AGATGTGCTGAGGCTGTAGAAAGTGCTTTTTATTTGGTTGGGAGCTTGTGCATAAATGCGAGAGGGGCTGCAC ATCTGACGGACTAGAGGTGACTCATGGCTGAACCGGAACAGGACATCGGGGAGAAGCCAGCAGCCATGCTGAA CTCTCCACAGGGCCCTGTGAAAAGCTCTTCACCTCCTCTGCCCTCTGGATCTAGTGAAGCCTATTCATCCTTC AGATGTCAGCTCAAATAATCAACCTTCATGGAGGCCTCCCTTGACCCCTAACATGCTTTCAAAGTACTGTGTA TTTCACATTCATCATGCCCCGACAACTGTGATTTCCCATTTATTAATATCTGTCTCTTCTGCTGGCCTGCAAA CTCCAGGAGCACAGAGACATCTTTGGGATTTTTGAACATGATTTCCCCAGGGCTTAGCCCAGTGCCTGGTGCA AAGCAGGCTTTCAACATGTTCAGTGGATATTGTAAGAAAGAAAGAAATACACAAAAGGCCTGGCATATGCAAA GCACTCTAAATATTCACTCCTTTCCCTTCCCTCTGGGTGAGAAAATTTCTCCTTATAAAGACACCCTCCTAAC TGTATCTCTGCTAGAGAACTGAAGACATAAAGCACTCTGTGCCAAAAATATTTAAGTAAAAACTTGAGCTAAG CACAGAGATTATAAATATTTCTTCCCCAGATTACGCACCATTTAAAAATACTGTCTCAGCTCCTTTTCATGAT

Fig. 41 (continued)

	TTGGGTGGTGATTAAAGAAAATTACTCTTCAAGACTGAAAGTCATTACTGCCCTTTTCCTGACTTGCCTTTTC CCTTGAGAAGGGGAGGATAAGCTGCAGGGCAGGAAGTGGAAGTGGGGCATCCTTGTCCTTTGTCTGGCAGACA GCCAACTGGTCAGGTACTGCTCCTTCTCAACTCTTTCCTGATTCCCAGGTGAATATAAACAAGAAGGCACAAA TCCACACTTGCCAACAACGGACCCAAGTGATAACAAGAAACCCAGTGACACCTGTCTAGGTGAAGACTCAGCC CCTATGTGACCAGGTTGCAAAGCCAAACTGACCATCTGCTTTCCATTTGGACTTTTAGTTCATACTGTATCTT CTCAGGACAGTTAAGTTGGAATACAATGCCACTGTCCTGAAAGATGGTAGAATTATCCTATTTCTGGAGGAGT GGGGGTGGTGGGTAGGAATCTCAAGAGCGATTTGCTCCTCTGCACAATAGCTTCTTTAAGGACACCAGGGCCC CCAGGGCTATACATTTCCCTGAAGCTTTCCAGATAAGCAACAAGGTATGAGCACCTGCTATGTATTGCCCAAG GGTGATGTGTTTAAATATCCATTGCATATTTTAAATCCTTGGCTGGCTTAAAGCTGCAAGCTTTCTGTCTTCA GTGGATATAATGGGGGCATACATCCCAGAGCTTGCCCAACACTCCAAGAAAAGAACCCTCAGCTAATGCAAAG TGTGTATGTGCCCATGAAAGCTCCATGTCTACTTAACATTCAGTTTTTAGGATTATTTATGCTGTAATAATAG ATATGAAAATCTCTGACAGGTATTTTGTTTCCTTTACAAACTGTATTTGAATTTATGGGTGATTTAGAGCTTG TGTTTAAAGTCAGAATTCAGAACCCCAAAGAAAATGACTTCATTGAAATTGAACTGAAGAGACAAGAACTGAG TTACCAAAACCTACTAAACGTGAGTTGCTGTGAACTGGGGATTAAACCAGAACGAGTGGAGAAGATCAGAAAG CTACCAAACACACTGCTCAGAAAGGACAAAGACATTCGAAGACTGCGGGACTTTCAGGAAGTGGAACTCATTT TAATGAAAAATGGAAGCTCCAGATTGACAGAATATGTGCCATCTCTGACAGAAAGGCCCTGCTATGATAGCAA AGCTGCAAAAATGACTTATTAAATACTCCCAGGAATGGCCGCGCATGGTGGCTCACCCCCTGTAATCCCAGCA CTTTGGGAAGCCAAGGTGGGCGGATCACCTGAGGTCAGGAGTTCTAGACCAGCCTGGCCAACATATAGTGAAA CCCAGTCTCTACTAAAAAAAATACAAAAATTAGCTAGGTGTGGTGGCGCACACCTGTAGTAGTCCCAGCTACA TGGGAAGCTGAGGCAGGAGAATCACCTGAACCCAGGAGGCAGAGGTTGCAGTGAGCTGAGATTGCGCCACTGC ACTCCAGCCTGGCGACAGAGCAAGACTCTGTCTCTCAAAATAAATAAATAAATAAATAAATAAATAAATAAAT AATC
#54	GCCCGGGAGAGGAGAGGAGCGGGCCGAGGACTCCAGCGTGCCCAGGTCTGGCATCCTGCACTTGCTGCCCTCT GACACCTGGGAAGATGGCCGGCCCGTGGACCTTCACCCTTCTCTGTGGTTTGCTGGCAGCCACCTTGATCCAA GCCACCCTCAGTCCCACTGCAGTTCTCATCCTCGGCCCAAAAGTCATCAAAGAAAAGCTGACACAGGAGCTGA AGGACCACAACGCCACCAGCATCCTGCAGCAGCTGCCGCTGCTCAGTGCCATGCGGGAAAAGCCAGCCGGAGG CATCCCTGTGCTGGGCAGCCTGGTGAACACCGTCCTGAAGCACATCATCTGGCTGAAGGTCATCACAGCTAAC ATCCTCCAGCTGCAGGTGAAGCCCTCGGCCAATGACCAGGAGCTGCTAGTCAAGATCCCCCTGGACATGGTGG CTGGATTCAACACGCCCCTGGTCAAGACCATCGTGGAGTTCCACATGACGACTGAGGCCCAAGCCACCATCCG CATGGACACCAGTGCAAGTGGCCCCACCCGCCTGGTCCTCAGTGACTGTGCCACCAGCCATGGGAGCCTGCGC ATCCAACTGCTGCATAAGCTCTCCTTCCTGGTGAACGCCTTAGCTAAGCAGGTCATGAACCTCCTAGTGCCAT CCCTGCCCAATCTAGTGAAAAACCAGCTGTGTCCCGTGATCGAGGCTTCCTTCAATGGCATGTATGCAGACCT CCTGCAGCTGGTGAAGGTGCCCATTTCCCTCAGCATTGACCGTCTGGAGTTTGACCTTCTGTATCCTGCCATC AAGGGTGACACCATTCAGCTCTACCTGGGGGCCAAGTTGTTGGACTCACAGGGAAAGGTGACCAAGTGGTTCA ATAACTCTGCAGCTTCCCTGACAATGCCCACCCTGGACAACATCCCGTTCAGCCTCATCGTGAGTCAGGACGT GGTGAAAGCTGCAGTGGCTGCTGTGCTCTCTCCAGAAGAATTCATGGTCCTGTTGGACTCTGTGCTTCCTGAG AGTGCCCATCGGCTGAAGTCAAGCATCGGGCTGATCAATGAAAAGGCTGCAGATAAGCTGGGATCTACCCAGA TCGTGAAGATCCTAACTCAGGACACTCCCGAGTTTTTTATAGACCAAGGCCATGCCAAGGTGGCCCAACTGAT CGTGCTGGAAGTGTTTCCCTCCAGTGAAGCCCTCCGCCCTTTGTTCACCCTGGGCATCGAAGCCAGCTCGGAA GCTCAGTTTTACACCAAAGGTGACCAACTTATACTCAACTTGAATAACATCAGCTCTGATCGGATCCAGCTGA TGAACTCTGGGATTGGCTGGTTCCAACCTGATGTTCTGAAAAACATCATCACTGAGATCATCCACTCCATCCT GCTGCCGAACCAGAATGGCAAATTAAGATCTGGGGTCCCAGTGTCATTGGTGAAGGCCTTGGGATTCGAGGCA GCTGAGTCCTCACTGACCAAGGATGCCCTTGTGCTTACTCCAGCCTCCTTGTGGAAACCCAGCTCTCCTGTCT CCCAGTGAAGACTTGGATGGCAGCCATCAGGGAAGGCTGGGTCCCAGCTGGGAGTATGGGTGTGAGCTCTATA GACCATCCCTCTCTGCAATCAATAAACACTTGCCTGTGAT
#55	GGAGTGGGGGAGAGAGAGGAGACCAGGACAGCTGCTGAGACCTCTAAGAAGTCCAGATACTAAGAGCAAAGAT GTTTCAAACTGGGGGCCTCATTGTCTTCTACGGGCTGTTAGCCCAGACCATGGCCCAGTTTGGAGGCCTGCCC GTGCCCCTGGACCAGACCCTGCCCTTGAATGTGAATCCAGCCCTGCCCTTGAGTCCCACAGGTCTTGCAGGAA GCTTGACAAATGCCCTCAGCAATGGCCTGCTGTCTGGGGGCCTGTTGGGCATTCTGGAAAACCTTCCGCTCCT GGACATCCTGAAGCCTGGAGGAGGTACTTCTGGTGGCCTCCTTGGGGGACTGCTTGGAAAAGTGACGTCAGTG ATTCCTGGCCTGAACAACATCATTGACATAAAGGTCACTGACCCCCAGCTGCTGGAACTTGGCCTTGTGCAGA GCCCTGATGGCCACCGTCTCTATGTCACCATCCCTCTCGGCATAAAGCTCCAAGTGAATACGCCCCTGGTCGG TGCAAGTCTGTTGAGGCTGGCTGTGAAGCTGGACATCACTGCAGAAATCTTAGCTGTGAGAGATAAGCAGGAG AGGATCCACCTGGTCCTTGGTGACTGCACCCATTCCCCTGGAAGCCTGCAAATTTCTCTGCTTGATGGACTTG GCCCCCTCCCCATTCAAGGTCTTCTGGACAGCCTCACAGGGATCTTGAATAAAGTCCTGCCTGAGTTGGTTCA GGGCAACGTGTGCCCTCTGGTCAATGAGGTTCTCAGAGGCTTGGACATCACCCTGGTGCATGACATTGTTAAC ATGCTGATCCACGGACTACAGTTTGTCATCAAGGTCTAAGCCTTCCAGGAAGGGGCTGGCCTCTGCTGAGCTG CTTCCCAGTGCTCACAGATGGCTGGCCCATGTGCTGGAAGATGACACAGTTGCCTTCTCTCCGAGGAACCTGC CCCCTCTCCTTTCCCACCAGGCGTGTGTAACATCCCATGTGCCTCACCTAATAAAATGGCTCTTCTTCTGCAA AAAAAAAAAAAAAAAAAAAAAAAAAA

Fig. 41 (continued)

#56	GAGCAGAGCCCTTTCACACACCTCAGGAACACCTTTCGGCTGCCCGCTCCCCAGACACACCTGCAGCCCTGCC
	CAGCCGGCTTTGCTCACCCACTGCTTGTAAATGCCCCAGATATGAGCCAGCCCAGGCCCCGCTACGTGGTAGA
	CAGAGCCGCATACTCCCTTACCCTCTTCGACGATGAGTTTGAGAAGAAGGACCGGACATACCCAGTGGGAGAG
	AAACTTCGCAATGCCTTCAGATGTTCCTCAGCCAAGATCAAAGCTGTGGTGTTTGGGCTGCTGCCTGTGCTCT
	CCTGGCTCCCCAAGTACAAGATTAAAGACTACATCATTCCTGACCTGCTCGGTGGACTCAGCGGGGGATCCAT
	CCAGGTCCCACAAGGCATGGCATTTGCTCTGCTGGCCAACCTTCCTGCAGTCAATGGCCTCTACTCCTCCTTC
	TTCCCCCTCCTGACCTACTTCTTCCTGGGGGGTGTTCACCAGATGGTGCCAGGTACCTTTGCCGTTATCAGCA
	TCCTGGTGGGTAACATCTGTCTGCAGCTGGCCCCAGAGTCGAAATTCCAGGTCTTCAACAATGCCACCAATGA
	GAGCTATGTGGACACAGCAGCCATGGAGGCTGAGAGGCTGCACGTGTCAGCTACGCTAGCCTGCCTCACCGCC
	ATCATCCAGATGGGTCTGGGCTTCATGCAGTTTGGCTTTGTGGCCATCTACCTCTCCGAGTCCTTCATCCGGG
	GCTTCATGACGGCCGCCGGCCTGCAGATCCTGATTTCGGTGCTCAAGTACATCTTCGGACTGACCATCCCCTC
	CTACACAGGCCCAGGGTCCATCGTCTTTACCTTCATTGACATTTGCAAAAACCTCCCCCACACCAACATCGCC
	TCGCTCATCTTCGCTCTCATCAGCGGTGCCTTCCTGGTGCTGGTGAAGGAGCTCAATGCTCGCTACATGCACA
	AGATTCGCTTCCCCATCCCTACAGAGATGATTGTGGTGGTGGTGGCAACAGCTATCTCCGGGGGCTGTAAGAT
	GCCCAAAAAGTATCACATGCAGATCGTGGGAGAAATCCAACGCGGGTTCCCCACCCCGGTGTCGCCTGTGGTC
	TCACAGTGGAAGGACATGATAGGCACAGCCTTCTCCCTAGCCATCGTGAGCTACGTCATCAACCTGGCTATGG
	GCCGGACCCTGGCCAACAAGCACGGCTACGACGTGGATTCGAACCAGGAGATGATCGCTCTCGGCTGCAGCAA
	CTTCTTTGGCTCCTTCTTTAAAATTCATGTCATTTGCTGTGCGCTTTCTGTCACTCTGGCTGTGGATGGAGCT
	GGAGGAAAATCCCAGGTGGCCAGCCTGTGTGTGTCTCTGGTGGTGATGATCACCATGCTGGTCCTGGGGATCT
	ATCTGTATCCTCTCCCTAAGTCTGTGCTAGGAGCCCTGATCGCTGTCAATCTCAAGAACTCCCTCAAGCAACT
	CACCGACCCCTACTACCTGTGGAGGAAGAGCAAGCTGGACTGTTGCATCTGGGTAGTGAGCTTCCTCTCCTCC
	TTCTTCCTCAGCCTGCCCTATGGTGTGGCAGTGGGTGTCGCCTTCTCCGTCCTGGTCGTGGTCTTCCAGACTC
	AGTTTCGAAATGGCTATGCACTGGCCCAGGTCATGGACACTGACATTTATGTGAATCCCAAGACCTATAATAG
	GGCCCAGGATATCCAGGGGATTAAAATCATCACGTACTGCTCCCCTCTCTACTTTGCCAACTCAGAGATCTTC
	AGGCAAAAGGTCATCGCCAAGACAGGCATGGACCCCCAGAAAGTATTACTAGCCAAGCAAAAATACCTCAAGA
	AGCAGGAGAAGCGGAGAATGAGGCCCACACAACAGAGGAGGTCTCTATTCATGAAAACCAAGACTGTCTCCCT
	GCAGGAGCTGCAGCAGGACTTTGAGAATGCGCCCCCCACCGACCCCAACAACAACCAGACCCCGGCTAACGGC
	ACCAGCGTGTCCTATATCACCTTCAGCCCTGACAGCTCCTCACCTGCCCAGAGTGAGCCACCAGCCTCCGCTG
	AGGCCCCCGGCGAGCCCAGTGACATGCTGGCCAGCGTCCCACCCTTCGTCACCTTCCACACCCTCATCCTGGA
	CATGAGTGGAGTCAGCTTCGTGGACTTGATGGGCATCAAGGCCCTGGCCAAGCTGAGCTCCACCTATGGGAAG
	ATCGGCGTGAAGGTCTTCTTGGTGAACATCCATGCCCAGGTGTACAATGACATTAGCCATGGAGGCGTCTTTG
	AGGATGGGAGTCTAGAATGCAAGCACGTCTTTCCCAGCATACATGACGCAGTCCTCTTTGCCCAGGCAAATGC
	TAGAGACGTGACCCCAGGACACAACTTCCAAGGGGCTCCAGGGGATGCTGAGCTCTCCTTGTACGACTCAGAG
	GAGGACATTCGCAGCTACTGGGACTTAGAGCAGGAGATGTTCGGGAGCATGTTTCACGCAGAGACCCTGACCG
	CCCTGTGAGGGCTCAGCCAGTCCTCATGCTGCCTACAGAGTGCCTGGCACTTGGGACTTCCATAAAGGATGAG
	CCTGGGGTCACAGGGGGTGTCGGGCGGAGGAAAGTGCATCCCCCAGAGCTTGGGTTCCTCTCTCCTCTCCCCC
	TCTCTCCTCCCTTCCTTCCCTCCCCGCATCTCCAGAGAGAGCCTCTCAGCAGCAGGGGGGTGCTACCCTTACG
	GGAGTGAGAGTCTGGTGAGCCCACTCTTCACCCGTCAGGCCCTGGCCGCAATGGACAAGCCTCCTGCTCACTC
	CACCCCACCCACATCTGCCCTGTCCTTGGCAGCTGAAGGACACCTTGACTTCCAGCTTTTACGAGTGAGCCAA
	AAACAGAAGGACAAGTACAACTGTGCTGGCCTGCTGTACAAGCTTCAAAAAGTGTCCCAGAGCCCGCACGGCT
	CGGTGTCAGATGGTGTCAGGCTGTCACGGACATAGGGATAAACTTGGTTAGGACTCTGGCTTGCCTTCCCCAG
	CTGCCTCAACTCTGTCTCTGGCAGCTCTGCACCCAGGGACCATGTGCTCTCCACACCCAGGAGTCTAGGCCTT
	GGTAACTATGCGCCCCCCCCTCCATCATCCCCAAGGCTGCCCAAACCACCACTGCTGTCAGCAAGCACATCAGA
	CTCTAGCCTGGACAGTGGCCAGGACCGTCGAGACCACCAGAGCTACCTCCCCGGGGACAGCCCACTAAGGTTC
	TGCCTCAGCCTCCTGAAACATCACTGCCCTCAGAGGCTGCTCCCTTCCCCTGGAGGCTGGCTAGAAACCCCAA
	AGAGGGGGATGGGTAGCTGGCAGAATCATCTGGCATCCTAGTAATAGATACCAGTTATTCTGCACAAAACTTT
	TGGGAATTCCTCTTTGCACCCAGAGACTCAGAGGGGAAGAGGGTGCTAGTACCAACACAGGGAAAACGGATGG
	GACCTGGGCCCAGACAGTCCCCCTTGACCCCAGGGCCCATCAGGGAAATGCCTCCCTTTGGTAAATCTGCCTT
	ATCCTTCTTTACCTGGCAAAGAGCCAATCATGTTAACTCTTCCTTATCAGCCTGTGGCCCAGAGACACAATGG
	GGTCCTTCTGTAGGCAAAGGTGGAAGTCCTCCAGGGATCCGCTACATCCCCTAACTGCATGCAGATGTGGAAA
	GGGGCTGATCCAGATTGGGTCTTCCTGCACAGGAAGACTCTTTAACACCCTTAGGACCTCAGGCCATCTTCTC
	CTATGAAGATGAAAATAGGGGTTAAGTTTTCCATATGTACAAGGAGGTATTGAGAGGAACCCTACTGTTGACT
	TGAAAATAAATAGGTTCCATGTGTAAGTGTTTTGTAAAATTTCAGTGGAAATGCACAGAAAATCTTCTGGCCT
	CTCATCACTGCTTTTCTCAAGCTTCTTCAGCTTAACAACCCCTTCCCTAACAGGTTGGGCTGGCCCAGCCTAG
	GAAAACATCCCCATTTCTAACTTCAGCCAGACCTGCGTTGTGTGTCTGTGTGTTGAGTGAGCTGGTCAGCTAA
	CAAGTCTTCTTAGAGTTAAAGGAGGGGGTGCTGGCCAAGAGCCAACACATTCTTGGCCCAGGAGCATTGCTTT
	TCTGTGAATTCATTATGCCATCTGGCTGCCAATGGAACTCAAAACTTGGAAGGCGAAGGACAATGTTATCTGG
	GATTCACCGTGCCCAGCACCCGAAGTGCCAAATTCCAGGAGGACAAGAGCCTTAGCCAATGACAACTCACTCT
	CCCCTACTCCACCTCCTTCCAAGTCCAGCTCAGGCCCAGGAGGTGGGAGAAGGTCACAGAGCCTCAGGAATTT
	CCAAGTCAGAGTCCCCTTTGAACCAAGTATCTAGATCCCCTGAGGACTTGATGAAGTGATCCTTAACCCCCAA
	GTAATCATTAACCCCCAGACCAGCCTCAGAACTGAAGGAGATTGTTGACCCAGTGACCTGGAGTTGAGGCTCA

Fig. 41 (continued)

	GGGAGAGATCTGCCACATGTCTGAGGGTTGCAGAGCCCGCTGTGGAGGTAAGATTGGAAACACATGAGGCAGA GGGAAGACATTGAAGAAAACATCTCTGCTGGAATATTTGGAAAAGAACACTCTTCTGGACCTGGTTGAAGCAG GAAAGATGGAGGCAAAGTAGTGAAATAATCCAGAATTTCAATGCTTTTGAATGTTCTTAGTGATACTGACCTG TGATAATATAATTCCCAGGGAGGACTGGGAACCTTATCTCTTGAGATATTTGCATAATTTATTTAATTTAAGC CTCATTCTCCTTTTGTTCATTTTGGTAATAAACTGGATTTGAATTGTGAACAAAAAAAAAAAAAAAAAA
#57	AATGCTCTAAGACCTCTCAGCACGGGCGGAAGAAACTCCCGGAGAGCTCACCCAAAAAACAAGGAGATCCCAT CTAGATTTCTTCTTGCTTTTGACTCACAGCTGGAAGTTAGAAAAGCCTCGATTTCATCTTTGGAGAGGCCAAA TGGTCTTAGCCTCAGTCTCTGTCTCTAAATATTCCACCATAAAACAGCTGAGTTATTTATGAATTAGAGGCTA TAGCTCACATTTTCAATCCTCTATTTCTTTTTTTAAATATAACTTTCTACTCTGATGAGAGAATGTGGTTTTA ATCTCTCTCTCACATTTTGATGATTTAGACAGACTCCCCCTCTTCCTCCTAGTCAATAAACCCATTGATGATC TATTTCCCAGCTTATCCCCAAGAAAACTTTTGAAAGGAAAGAGTAGACCCAAAGATGTTATTTTCTGCTGTTT GAATTTTGTCTCCCCACCCCCAACTTGGCTAGTAATAAACACTTACTGAAGAAGAAGCAATAAGAGAAAGATA TTTGTAATCTCTCCAGCCCATGATCTCGGTTTTCTTACACTGTGATCTTAAAAGTTACCAAACCAAAGTCATT TTCAGTTTGAGGCAACCAAACCTTTCTACTGCTGTTGACATCTTCTTATTACAGCAACACCATTCTAGGAGTT TCCTGAGCTCTCCACTGGAGTCCTCTTTCTGTCGCGGGTCAGAAATTGTCCCTAGATGAATGAGAAAATTATT TTTTTTAATTTAAGTCCTAAATATAGTTAAAATAAATAATGTTTTAGTAAAATGATACACTATCTCTGTGAAA TAGCCTCACCCCTACATGTGGATAGAAGGAAATGAAAAAATAATTGCTTTGACATTGTCTATATGGTACTTTG TAAAGTCATGCTTAAGTACAAATTCCATGAAAAGCTCACTGATCCTAATTCTTTCCCTTTGAGGTCTCTATGG CTCTGATTGTACATGATAGTAAGTGTAAGCCATGTAAAAAGTAAATAATGTCTGGGCACAGTGGCTCACGCCT GTAATCCTAGCACTTTGGGAGGCTGAGGAGGAAGGATCACTTGAGCCCAGAAGTTCGAGACTAGCCTGGGCAA CATGGAGAAGCCCTGTCTCTACAAAATACAGAGAGAAAAAATCAGCCAGTCATGGTGGCATACACCTGTAGTC CCAGCATTCCGGGAGGCTGAGGTGGGAGGATCACTTGAGCCCAGGGAGGTTGGGGCTGCAGTGAGCCATGATC ACACCACTGCACTCCAGCCAGGTGACATAGCGAGATCCTGTCTAAAAAAATAAAAAATAAATAATGGAACACA GCAAGTCCTAGGAAGTAGGTTAAAACTAATTCTTTAAAAAAAAAAAAAAAGTTGAGCCTGAATTAAATGTAATG TTTCCAAGTGACAGGTATCCACATTTGCATGGTTACAAGCCACTGCCAGTTGGCAGTAGCACTTTCCTGGCAC TGTGGTCGGTTTTGTTTTGTTTTGCTTTGTTTAGAGACGGGGTCTCACTTTCCAGGCTGGCCTCAAACTCCTG CACTCAAGCAATTCTTCTACCCTGGCCTCCCAAGTAGCTGGAATTACAGGTGTGCGCCATCACAACTAGCTGG TGGTCAGTTTTGTTACTCTGAGAGCTGTTCACTTCTCTGAATTCACCTAGAGTGGTTGGACCATCAGATGTTT GGGCAAAACTGAAAGCTCTTTGCAACCACACACCTTCCCTGAGCTTACATCACTGCCCTTTTGAGCAGAAAGT CTAAATTCCTTCCAAGACAGTAGAATTCCATCCCAGTACCAAAGCCAGATAGGCCCCCTAGGAAACTGAGGTA AGAGCAGTCTCTAAAAACTACCCACAGCAGCATTGGTGCAGGGGAACTTGGCCATTAGGTTATTATTTGAGAG GAAAGTCCTCACATCAATAGTACATATGAAAGTGACCTCCAAGGGGATTGGTGAATACTCATAAGGATCTTCA GGCTGAACAGACTATGTCTGGGGAAAGAACGGATTATGCCCCATTAAATAACAAGTTGTGTTCAAGAGTCAGA GCAGTGAGCTCAGAGGCCCTTCTCACTGAGACAGCAACATTTAAACCAAACCAGAGGAAGTATTTGTGGAACT CACTGCCTCAGTTTGGGTAAAGGATGAGCAGACAAGTCAACTAAAGAAAAAAGAAAAGCAAGGAGGAGGGTTG AGCAATCTAGAGCATGGAGTTTGTTAAGTGCTCTCTGGATTTGAGTTGAAGAGCATCCATTTGAGTTGAAGGC CACAGGGCACAATGAGCTCTCCCTTCTACCACCAGAAAGTCCCTGGTCAGGTCTCAGGTAGTGCGGTGTGGCT CAGCTGGGTTTTTAATTAGCGCATTCTCTATCCAACATTTAATTGTTTGAAAGCCTCCATATAGTTAGATTGT GCTTTGTAATTTTGTTGTTGTTGCTCTATCTTATTGTATATGCATTGAGTATTAACCTGAATGTTTTGTTACT TAAATATTAAAAACACTGTTATCCTACAAAAAAACCCTCAAAGGCTGAAAATAAAGAAGGAAGATGGAGACAC CCTCTGGGGGTCCTCTC
#58	CTTTGCAGTGGATGCCCTTGGCAGGGTGAGCCCACAAGGAGCAATGGAGCAGGGCAGCGGCCGCTTGGAGGAC TTCCCTGTCAATGTGTTCTCCGTCACTCCTTACACACCCAGCACCGCTGACATCCAGGTGTCCGATGATGACA AGGCGGGGGCCACCTTGCTCTTCTCAGGCATCTTTCTGGGACTGGTGGGGATCACATTCACTGTCATGGGCTG GATCAAATACCAAGGTGTCTCCCACTTTGAATGGACCCAGCTCCTTGGGCCCGTCCTGCTGTCAGTTGGGGTG ACATTCATCCTGATTGCTGTGTGCAAGTTCAAAATGCTCTCCTGCCAGTTGTGCAAAGAAAGTGAGGAAAGGG TCCCGGACTCGGAACAGACACCAGGAGGACCATCATTTGTTTTCACTGGCATCAACCAACCCATCACCTTCCA TGGGGCCACTGTGGTGCAGTACATCCCTCCTCCTTATGGTTCTCCAGAGCCTATGGGGATAAATACCAGCTAC CTGCAGTCTGTGGTGAGCCCCTGCGGCCTCATAACCTCTGGAGGGGCAGCAGCCGCCATGTCAAGTCCTCCTC AATACTACACCATCTACCCTCAAGATAACTCTGCATTTGTGGTTGATGAGGGCTGCCTTTCTTTCACGGACGG TGGAAATCACAGGCCCAATCCTGATGTTGACCAGCTAGAAGAGACACAGCTGGAAGAGGAGGCCTGTGCCTGC TTCTCTCCTCCCCCTTATGAAGAAATATACTCTCTCCCTCGCTAGAGGCTATTCTGATATAATAACACAATGC TCAGCTCAGGGAGCAAGTGTTTCCGTCATTGTTACCTGACAACCGTGGTGTTCTATGTTGTAACCTTCAGAAG TTACAGCAGCGCCCAGGCAGCCTGACAGAGATCATTCAAGGGGGGAAAGGGGAAGTGGGAGGTGCAATTTCTC AGATTGGTAAAAATTAGGCTGGGCTGGGGAAATTCTCCTCCGGAACAGTTTCAAATTCCCTCGGGTAAGAAAT CTCCTGTATAAGGTTCAGGAGCAGGAATTTCACTTTTTCATCCACCACCCTCCCCCTTCTCTGTAGGAAGGCA TTGGTGGCTCAATTTTAACCCCAGCAGCCAATGGAAAAATCACGACTTCTGAGACTTTGGGAGTTTCCACAGA GGTGAGAGTCGGGTGGGAAGGAAGCAGGGAAGAGAAAGCAGGCCCAGCTGGAGATTTCCTGGTGGCTGTCCTT

Fig. 41 (continued)

	GGCCCCAAAGCAGACTCACTAATCCCAAACAACTCAGCTGCCATCTGGCCTCTCTGAGGACTCTGGGTACCTT AAAGACTATA
#59	CAGGAAAGTTCGTGCTGCTAGGCAGAGGAACTGCAGCTTGTTGGCAGGTGAAGGGAGCCTGTTTAGCTGTGTC CAGCAACAACTTACGTGGTCCTGCTTGTGTTCCAGGTGAAGCGTCTGGCCGCCGAGCAGAGGAATCAAGACCT GCTCATTCTTTCCTCGGGGGATCCATCCAGCAATGACATCATCTCATGCTGCCACAAGGACCCCAAGTCTGGG CTGCTGGGGACCAGCCACGCTCCCCACTGCTCATTCCTTCATCCTAGAGACATTCTGACTCTCCTCCGACTGC GCTGTGCACAGGCGTGACAAGCTCTTTTACATCTCAGTCTGCACAACTTCAGGCACTTAGCAGATTGATATGC ATCCAACAAATATTGATTGAATATCTGCTAAATACCCAGTAATGTTTCATGAGTGATTGGGTGAATAAAGGAA TGCTGGTTCCTTCTGGCCATATTAACTCCTGCACAATACTAAGAAAAATAAATTGCACTAGCTGTGGAATAAT GTGAATCCCAATGTCATCTATTGAAATATTACCTGACTATTAAGAGGTATTTATTTTTGTATCTTTTCTAGCA AAGTAAATAAAATTCTTAATACAGCATATCCCCTTATTCACGGGGGGTATGTTCCAAGACCCCCGGTGGATGC CTGAAACTATGGATAATACCAGATCC
#60	MGPFKSSVFILILHLLEGALSNSLIQLNNNGYEGIVVAIDPNVPEDETLIQQIKDMVTQASLYLFEATGKRFY FKNVAILIPETWKTKADYVRPKLETYKNADVLVAESTPPGNDEPYTEQMGNCGEKGERIHLTPDFIAGKKLAE YGPQGKAFVHEWAHLRWGVFDEYNNDEKFYLSNGRIQAVRCSAGITGTNVVKKCQGGSCYTKRCTFNKVTGLY EKGCEFVLQSRQTEKASIMFAQHVDSIVEFCTEQNHNKEAPNKQNQKCNLRSTWEVIRDSEDFKKTTPMTTQP PNPTFSLLQIGQRIVCLVLDKSGSMATGNRLNRLNQAGQLFLLQTVELGSWVGMVTFDSAAHVQSELIQINSG SDRDTLAKRLPAAASGGTSICSGLRSAFTVIRKKYPTDGSEIVLLTDGEDNTISGCFNEVKQSGAIIHTVALG PSAAQELEELSKMTGGLQTYASDQVQNNGLIDAFGALSSGNGAVSQRSIQLESKGLTLQNSQWMNGTVIVDST VGKDTLFLITWTTQPPQILLWDPSGQKQGGFVVDKNTKMAYLQIPGIAKVGTWKYSLQASSQTLTLTVTSRAS NATLPPITVTSKTNKDTSKFPSPLVVYANIRQGASPILRASVTALIESVNGKTVTLELLDNGAGADATKDDGV YSRYFTTYDTNGRYSVKVRALGGVN AARRRVIPQQSGALYIPGWIENDEIQWNPPRPEINKDDVQHKQVCFSRTSSGGSFVASDVPNAPIPDLFPPGQ ITDLKAEIHGGSLINLTWTAPGDDYDHGTAHKYIIRISTSILDLRDKFNESLQVNTTALIPKEANSEEVFLFK PENITFENGTDLFIAIQAVDKVDLKSEISNIARVSLFIPPQTPPETPSPDETSAPCPNIHINSTIPGIHILKI MWKWIGELQLSIA
#61	MKKEGRKRWKRKEDKKRVVVSNLLFEGWSHKENPNRHHRGNQIKTSKYTVLSFVPKNIFEQLHRFANLYFVGI AVLNFIPVVNAFQPEVSMIPICVILAVTAIKDAWEDLRRYKSDKVINNRECLIYSRKEQTYVQKCWKDVRVGD FIQMKCNEIVPADILLLFSSDPNGICHLETASLDGETNLKQRRVVKGFSQQEVQFEPELFHNTIVCEKPNNHL NKFKGYMEHPDQTRTGFGCESLLLRGCTIRNTEMAVGIVIYAGHETKAMLNNSGPRYKRSKIERRMNIDIFFC IGILILMCLIGAVGHSIWNGTFEEHPPFDVPDANGSFLPSALGGFYMFLTMIILLQVLIPISLYVSIELVKLG QVFFLSNDLDLYDEETDLSIQCRALNIAEDLGQIQYIFSDKTGTLTENKMVFRRCTIMGSEYSHQENGIEAPK GSIPLSKRKYPALLRNEEIKDILLALLEAVWHFHKLLPVSLWSSLSQIRAVPITCKLSFVYKG
#62	MGRRSPFKPRNKVFGFSYPWCRSYQPFPRKRAWPPSRVWLGACCASLASPPKGTIPSGEYYRPAPSSSGDSLR RESGALLQYLPSLASPCANHATRCSLLFPIYKIKMTLLYLTGLARTHCCCLADRCAEAVESAFYLVGSLCINA RGAAHLTD
#63	MAGPWTFTLLCGLLAATLIQATLSPTAVLILGPKVIKEKLTQELKDHNATSILQQLPLLSAMREKPAGGIPVL GSLVNTVLKHIIWLKVITANILQLQVKPSANDQELLVKIPLDMVAGFNTPLVKTIVEFHMTTEAQATIRMDTS ASGPTRLVLSDCATSHGSLRIQLLHKLSFLVNALAKQVMNLLVPSLPNLVKNQLCPVIEASFNGMYADLLQLV KVPISLSIDRLEFDLLYPAIKGDTIQLYLGAKLLDSQGKVTKWFNNSAASLTMPTLDNIPFSLIVSQDVVKAA VAAVLSPEEFMVLLDSVLPESAHRLKSSIGLINEKAADKLGSTQIVKILTQDTPEFFIDQGHAKVAQLIVLEV FPSSEALRPLFTLGIEASSEAQFYTKGDQLILNLNNISSDRIQLMNSGIGWFQPDVLKNIITEIIHSILLPNQ NGKLRSGVPVSLVKALGFEAAESSLTKDALVLTPASLWKPSSPVSQ
#64	MFQTGGLIVFYGLLAQTMAQFGGLPVPLDQTLPLNVNPALPLSPTGLAGSLTNALSNGLLSGGLLGILENLPL LDILKPGGGTSGGLLGGLLGKVTSVIPGLNNIIDIKVTDPQLLELGLVQSPDGHRLYVTIPLGIKLQVNTPLV GASLLRLAVKLDITAEILAVRDKQERIHLVLGDCTHSPGSLQISLLDGLGPLPIQGLLDSLTGILNKVLPELV QGNVCPLVNEVLRGLDITLVHDIVNMLIHGLQFVIKV
#65	MSQPRPRYVVDRAAYSLTLFDDEFEKKDRTYPVGEKLRNAFRCSSAKIKAVVFGLLPVLSWLPKYKIKDYIIP DLLGGLSGGSIQVPQGMAFALLANLPAVNGLYSSFFPLLTYFFLGGVHQMVPGTFAVISILVGNICLQLAPES KFQVFNNATNESYVDTAAMEAERLHVSATLACLTAIIQMGLGFMQFGFVAIYLSESFIRGFMTAAGLQILISV

Fig. 41 (continued)

	LKYIFGLTIPSYTGPGSIVFTFIDICKNLPHTNIASLIFALISGAFLVLVKELNARYMHKIRFPIPTEMIVVV VATAISGGCKMPKKYHMQIVGEIQRGFPTPVSPVVSQWKDMIGTAFSLAIVSYVINLAMGRTLANKHGYDVDS NQEMIALGCSNFFGSFFKIHVICCALSVTLAVDGAGGKSQVASLCVSLVVMITMLVLGIYLYPLPKSVLGALI AVNLKNSLKQLTDPYYLWRKSKLDCCIWVVSFLSSFFLSLPYGVAVGVAFSVLVVVFQTQFRNGYALAQVMDT DIYVNPKTYNRAQDIQGIKIITYCSPLYFANSEIFRQKVIAKTGMDPQKVLLAKQKYLKKQEKRRMRPTQQRR SLFMKTKTVSLQELQQDFENAPPTDPNNNQTPANGTSVSYITFSPDSSSPAQSEPPASAEAPGEPSDMLASVP PFVTFHTLILDMSGVSFVDLMGIKA LAKLSSTYGKIGVKVFLVNIHAQVYNDISHGGVFEDGSLECKHVFPSIHDAVLFAQANARDVTPGHNFQGAPG DAELSLYDSEEDIRSYWDLEQEMFGSMFHAETLTAL
#66	MEQGSGRLEDFPVNVFSVTPYTPSTADIQVSDDDKAGATLLFSGIFLGLVGITFTVMGWIKYQGVSHFEWTQL LGPVLLSVGVTFILIAVCKFKMLSCQLCKESEERVPDSEQTPGGPSFVFTGINQPITFHGATVVQYIPPPYGS PEPMGINTSYLQSVVSPCGLITSGGAAAAMSSPPQYYTIYPQDNSAFVVDEGCLSFTDGGNHRPNPDVDQLEE TQLEEEACACFSPPPYEEIYSLPR
#67	*ACACGAATGGTAGATACAGTG*
#68	*ATACTTGTGAGCTGTTCCATG*
#69	ACTGTTACCTTGCATGGACTG
#70	CAATGAGAACACATGGACATG
#71	CCATGAAAGCTCCATGTCTAC
#72	AGAGATGGCACATATTCTGTC
#73	*ATCGGCTGAAGTCAAGCATCG*
#74	*TGGTCAGTGAGGACTCAGCTG*
#75	TTTCTCTGCTTGATGCACTTG
#76	*GTGAGCACTGGGAAGCAGCTC*
#77	GGCAAATGCTAGAGACGTGAC
#78	AGGTGTCCTTCAGCTGCCAAG
#79	GTTAAGTGCTCTCTGGATTTG
#80	ATCCTGATTGCTGTGTGCAAG
#81	CTCTTCTAGCTGGTCAACATC
#82	CCAGCAACAACTTACGTGGTC
#83	CCTTTATTCACCCAATCACTC
#84	agaacagcgcagtttgccctccgctcacgcagagcctctccgtggcctccgcaccttgag cattaggccagttctcctcttctctctaatccatccgtcacctctcctgtcatccgtttc catgccgtgaggtccattcacagaacacatccatggctctcatgctcagtttggttctga gtctcctcaagctgggatcagggcagtggcaggtgtttgggccagacaagcctgtccagg ccttggtgggggaggacgcagcattctcctgtttcctgtctcctaagaccaatgcagagg ccatggaagtgcggttcttcaggggccagttctctagcgtggtccacctctacagggacg

Fig. 41 (continued)

	ggaaggaccagccatttatgcagatgccacagtatcaaggcaggacaaaactggtgaagg attctattgcggaggggcgcatctctctgaggctggaaaacattactgtgttggatgctg gcctctatgggtgcaggattagttcccagtcttactaccagaaggccatctgggagctac aggtgtcagcactgggctcagttcctctcatttccatcacgggatatgttgatagagaca tccagctactctgtcagtcctcgggctggttcccccggcccacagcgaagtggaaaggtc cacaaggacaggatttgtccacagactccaggacaaacagagacatgcatggcctgtttg atgtggagatctctctgaccgtccaagagaacgccgggagcatatcctgttccatgcggc atgctcatctgagccgagaggtggaatccagggtacagataggagataccttttcgagc ctatatcgtggcacctggctaccaaagtactgggaatactctgctgtggcctatttttg gcattgttggactgaagattttcttctccaaattccagtgtaagcgagagagagaagcat gggccggtgccttattcatggttccagcagggacaggatcagagatgctcccacatccag ctgcttctcttcttctagtcctagcctccaggggcccaggcccaaaaaaggaaaatccag gcggaactggactggagaagaaagcacggacaggcagaattgagagacgcccggaaacac gcagtggaggtgactctggatccagagacggctcacccgaagctctgcgtttctgatctg aaaactgtaacccatagaaaagctccccaggaggtgcctcactctgagaagagatttaca aggaagagtgtggtggcttctcagagtttccaagcagggaaacattactgggaggtggac ggaggacacaataaaaggtggcgcgtgggagtgtgccgggatgatgtggacaggaggaag gagtacgtgactttgtctcccgatcatgggtactgggtcctcagactgaatggagaacat ttgtatttcacattaaatccccgttttatcagcgtcttccccaggaccccacctacaaaa atagggggtcttcctggactatgagtgtgggaccatctccttcttcaacataaatgaccag tcccttatttataccctgacatgtcggtttgaaggcttattgaggccctacattgagtat ccgtcctataatgagcaaaatggaactcccatagtcatctgcccagtcacccaggaatca gagaaagaggcctcttggcaaagggcctctgcaatcccagagacaagcaacagtgagtcc tcctcacaggcaaccacgcccttcctccccaggggtgaaatgtaggatgaatcacatccc acattcttctttagggatattaaggtctctctcccagatccaaagtcccgcagcagccgg ccaaggtggcttccagatgaaggggactggcctgtccacatgggagtcaggtgtcatgg ctgccctgagctgggagggaagaaggctgacattacatttagtttgctctcactccatct ggctaagtgatcttgaaataccacctctcaggtgaagaaccgtcaggaattcccatctca caggctgtggtgtagattaagtagacaaggaatgtgaataatgcttagatcttattgatg acagagtgtatcctaatggtttgttcattatattacactttcagtaaaaaaaaaaaaaaa aaaaa
#85	malmlslvlsllklgsgqwqvfgpdkpvqalvgedaafscflspktnaeamevrffrgqf ssvvhlyrdgkdqpfmqmpqyqgrtklvkdsiaegrislrlenitvldaglygcrissqs yyqkaiwelqvsalgsvplisitgyvdrdiqllcqssgwfprptakwkgpqgqdlstdsr tnrdmhglfdveisltvqenagsiscsmrhahlsrevesrvqigdtffepiswhlatkvl gilccglffgivglkiffskfqckrereawagalfmvpagtgsemlphpaaslllvlasr gpgpkkenpggtglekkartgrierrpetrsggdsgsrdgspealrf
#86	ATTCATGGTTCCAGCAGGGAC
#87	GGGAGACAAAGTCACGTACTC

#88	TCCTGGTGTTCGTGGTCTGCTT
#89	GAGAGTCCTGGCTTTTGTGGGC
#90	GSSDLTWPPAIKLGC
#91	DRYVAVRHPLRARGLR
#92	VAPRAKAHKSQDSLC
#93	CFRSTRHNFNSMR
#94	MNGTYNTCGSSDLTWPPAIKLG
#95	RDTSDTPLCQLSQG
#96	GIQEGGFCFRSTRHNFNSMRFP
#97	AKEFQEASALAVAPRAKAHKSQDSLCVTLA
#98	TCCTGCTCGTCGCTCTCCTGAT
#99	TCGCTTTTTGTCGTATTTGC
#100	HNGSYEISVLMMGNS
#101	NLPTPPTVENQQRLA

Fig. 41 (continued)

#102	RKYRKDYELRQKKWSHIPPENIFPLETNETNHVSLKIDDDKRRDTIQRLRQCKYDKKRVILKDLKHNDGN FTEKQKIELNKLLQIDYYNLTKFYGTVKLDTMIFGVIEYCERGSLREVLNDTISYPDGTFMDWEFKISVL YDIAKGMSYLHSSKTEVHGRLKSTNCVVDSRMVVKITDFGCNSILPPKKDLWTAPEHLRQANISQKGDVY SYGIIAQEIILRKETFYTLSCRDRNEKIFRVENSNGMKPFRPDLFLETAEEKELEVYLLVKNCWEEDPEK RPDFKKIETTLAKIFGLFHDQKNESYMDTLIRRLQLYSRNLEHLVEERTQLYKAERDRADRLNFMLLPRL VVKSLKEKGFVEPELYEEVTIYFSDIVGFTTICKYSTPMEVVDMLNDIYKSFDHIVDHHDVYKVETIGDA YMVASGLPKRNGNRHAIDIAKMALEILSFMGTFELEHLPGLPIWIRIGVHSGPCAAGVVGIKMPRYCLFG DTVNTASRMESTGLPLRIHVSGSTIAILKRTECQFLYEVRGETYLKGRGNETTYWLTGMKDQKFNLPTPP TVENQQRLQAEFSDMIANSLQKRQAAGIRSQKPRRVASYKKGTLEYLQLNTTDKESTYF
#103	GCTGGTAACTATCTTCCTGC
#104	GAAGAATGTTGTCCAGAGGT
#105	LINKVPLPVDKLAPL
#106	SEAVKKLLEALSHLV
#107	TGTTTTCAACTACCAGGGGC
#108	TGTTGGCTTTGGCAGAGTCC
#109	GAGGCAGAGTTCAGGCTTCACCGA
#110	TGTTGGCTTTGGCAGAGTCC
#111	TGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGFTECRPYFTILGLPAMLQAVR
#112	DQWSTQDLYNNPVTAVFNYQGLWRSCVRESSGFTECRGYFTLL GLPAMLQAVR
#113	STQDLYNNPVTAVF
#114	DMWSTQDLYDNP
#115	CRPYFTILGLPA
#116	TNFWMSTANMYTG
#117	gccaggatca tgtccaccac cacatgccaa gtggtggcgt tcctcctgtc catcctgggg ctggccggct gcatcgcggc caccgggatg gacatgtgga gcacccagga cctgtacgac aaccccgtca cctccgtgtt ccagtacgaa gggctctgga ggagctgcgt gaggcagagt tcaggcttca ccgaatgcag gccctatttc accatcctgg gacttccagc catgctgcag gcagtgcgag ccctgatgat cgtaggcatc gtcctgggtg ccattggcct cctggtatcc atctttgccc tgaaatgcat ccgcattggc agcatggagg actctgccaa agccaacatg acactgacct ccgggatcat gttcattgtc tcaggtcttt gtgcaattgc tggagtgtct gtgtttgcca acatgctggt gactaacttc tggatgtcca cagctaacat gtacaccggc atgggtggga tggtgcagac tgttcagacc aggtacacat ttggtgcggc tctgttcgtg ggctgggtcg ctggaggcct cacactaatt gggggtgtga tgatgtgcat cgcctgccgg ggcctggcac cagaagaaac caactacaaa gccgtttctt atcatgcctc aggccacagt gttgcctaca agcctggagg cttcaaggcc agcactggct ttgggtccaa caccaaaaac aagaagatat acgatggagg tgcccgcaca gaggacgagg tacaatctta tccttccaag cacgactatg tgtaatgctc taagacctct cagcac
#118	MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVF QYEGLWRSCVRQSSGFTECRPYFTILGLPAMLQAVRALMIVGIVLGAIGLLVSIFALK CIRIGSMEDSAKANMTLTSGIMFIVSGLCAIAGVSVFANMLVTNFWMSTANMYTGMGG MVQTVQTRYTFGAALFVGWVAGGLTLIGGVMMCIACRGLAPEETNYKAVSYHASGHSV AYKPGGFKASTGFGSNTKNKKIYDGGARTEDEVQSYPSKHDYV
#119	gccaggatca tgtccaccac cacatgccaa gtggtggcgt tcctcctgtc catcctgggg ctggccggct gcatcgcggc caccgggatg gacatgtgga gcacccagga cctgtacgac aaccccgtca cctccgtgtt ccagtacgaa gggctctgga ggagctgcgt gaggcagagt tcaggcttca ccgaatgcag gccctatttc accatcctgg gacttcc
#120	MSTTTCQVVAFLLSILGLAGCIAATGMDMWSTQDLYDNPVTSVFQYEGLWRSCVRQSSGFTECRPYFTI
#121	AATGAGAGGAAAGAGAAAAC
#122	ATGGTAGAAGAGTAGGCAAT
#123	EKWNLHKRIALKMVC
#124	CLGFNFKEMFK
#125	TAATGATGAACCCTACACTGAGC

Fig. 41 (continued)

#126	ATGGACAAATGCCCTACCTT
#127	AGTGCTGGAAGGATGTGCGTGT
#128	TTGAGGTGGTTGTTGGGTTT
#129	AGATGTGCTGAGGCTGTAGA
#130	ATGAAGGTTGATTATTTGAG
#131	AGCCGCATACTCCCTTACCCTCT
#132	GCAGCAGCCCAAACACCACA
#133	CTGAGCCGAGAGGTGGAATC
#134	CTCTCTCGCTTACACTGGAA
#135	QWQVFGPDKPVQAL
#136	AKWKGPQGQDLSTDS
#137	NMLVTNFWMSTANMYTGMGGMVQTVQTRYTFG