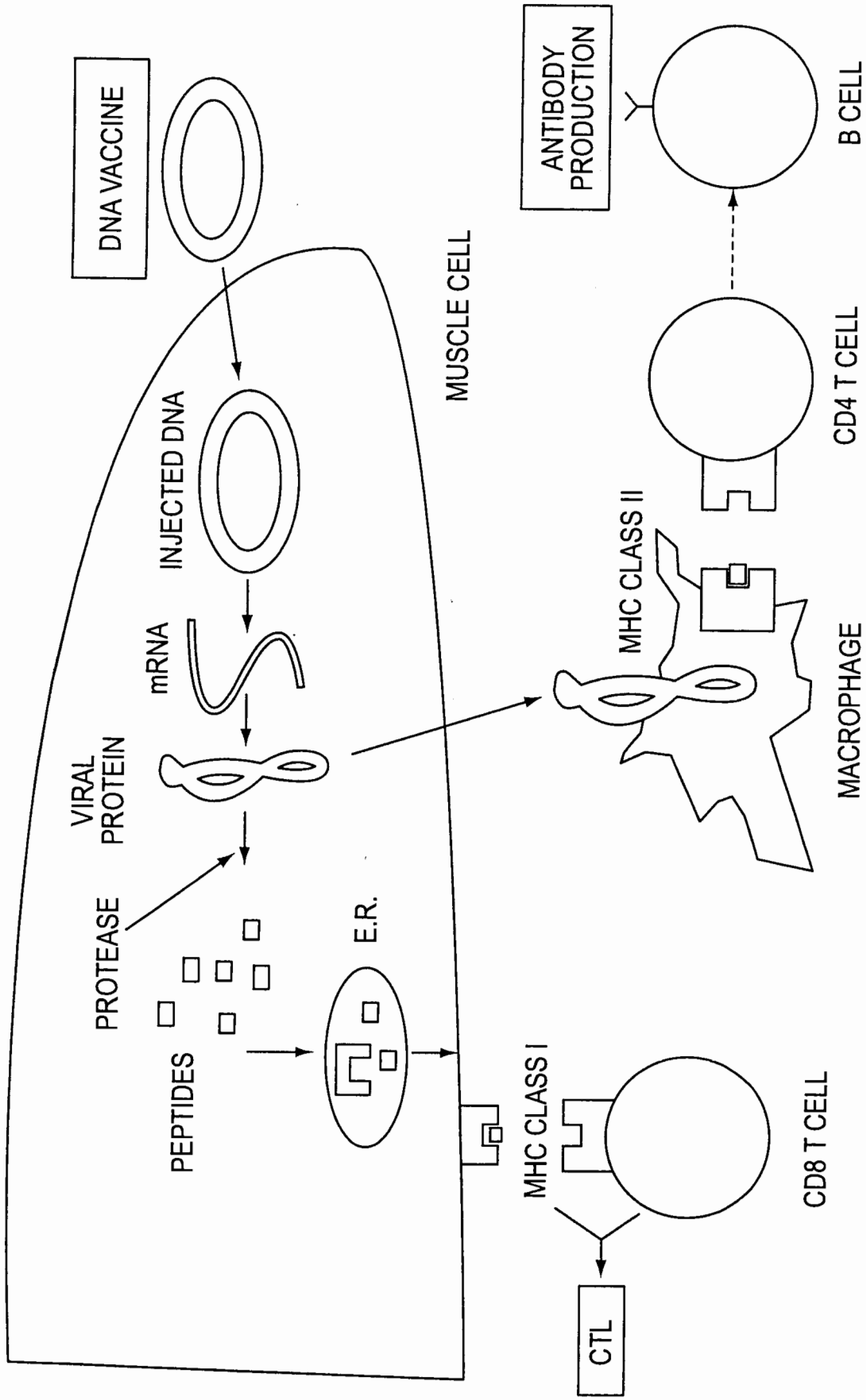

DNA VACCINE
MUSCLE CELL
INJECTED DNA
mRNA
VIRAL PROTEIN
PROTEASE
PEPTIDES
E.R.
MHC CLASS I
CTL
CD8 T CELL
MHC CLASS II
MACROPHAGE
CD4 T CELL
ANTIBODY PRODUCTION
B CELL

FIG. 1

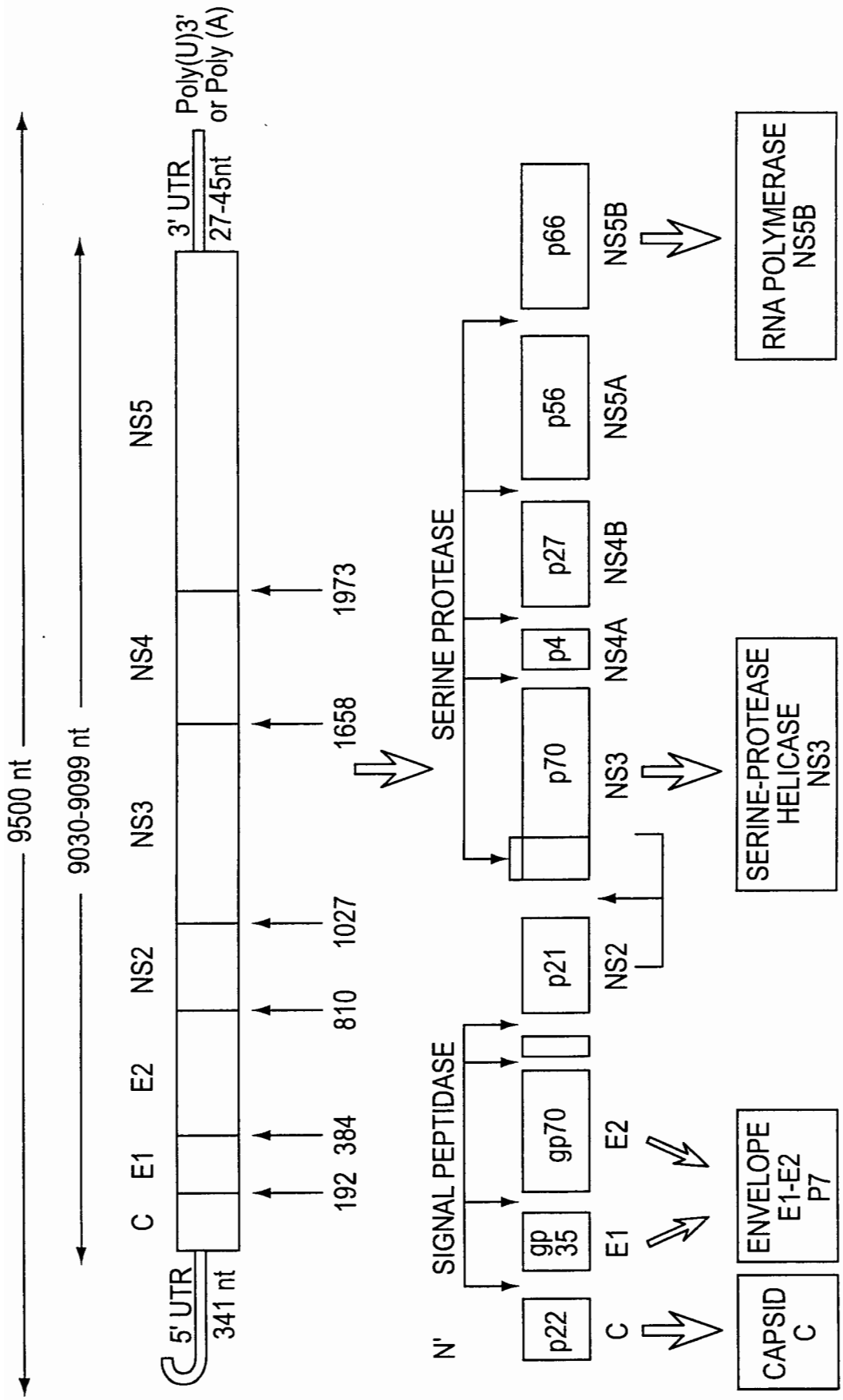

9500 nt
9030-9099 nt
5' UTR
341 nt
C
E1
E2
NS2
NS3
NS4
NS5
3' UTR
27-45nt
Poly(U)3'
or Poly (A)
192
384
810
1027
1658
1973
N'
C
SIGNAL PEPTIDASE
SERINE PROTEASE
p22
gp 35
gp70
p21
p70
p4
p27
p56
p66
NS2
NS3
NS4A
NS4B
NS5A
NS5B
CAPSID C
ENVELOPE E1-E2 P7
SERINE-PROTEASE HELICASE NS3
RNA POLYMERASE NS5B

FIG. 2

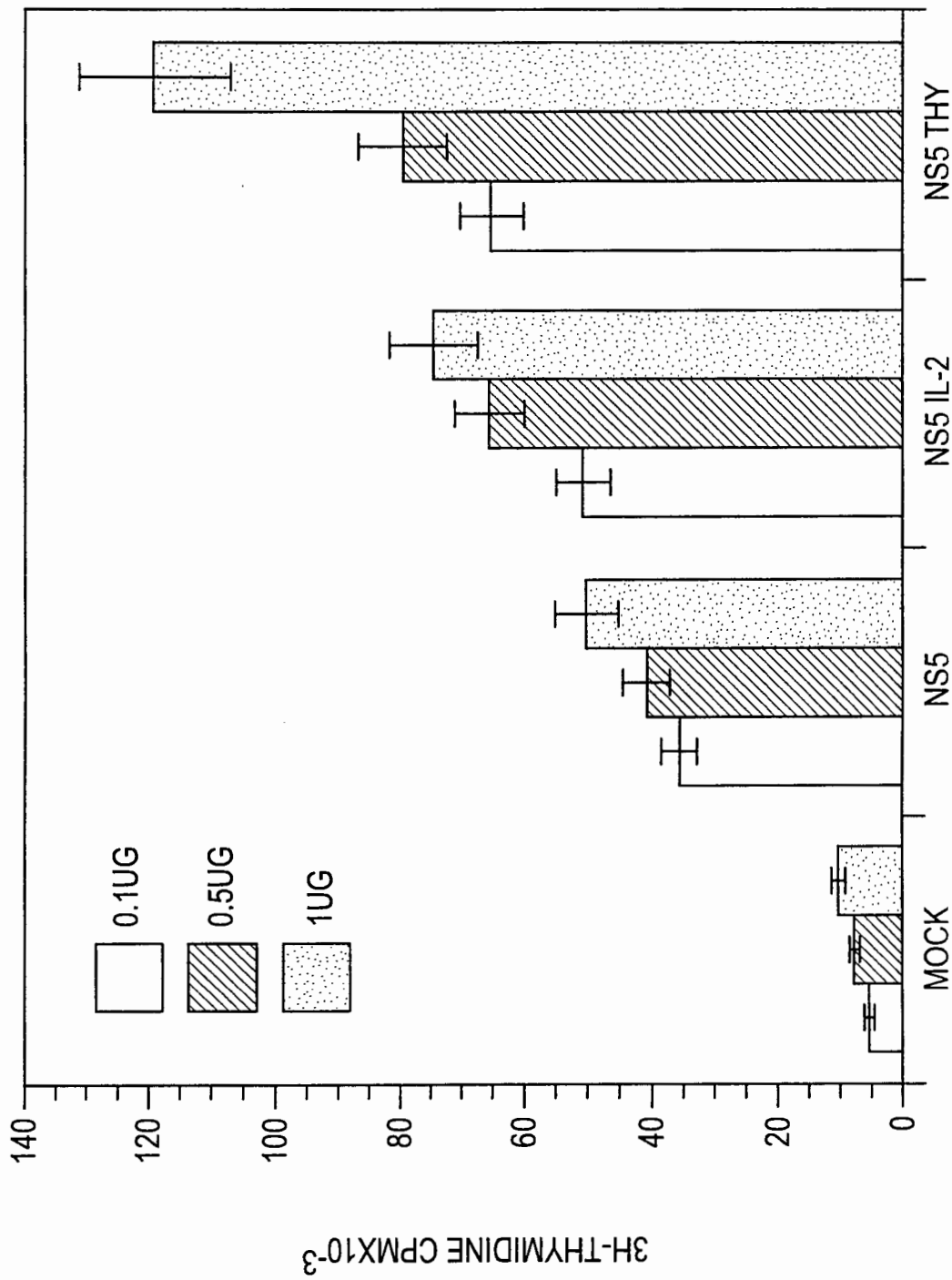

3H-THYMIDINE CPMX10-3
140
120
100
80
60
40
20
0
0.1UG
0.5UG
1UG
MOCK
NS5
NS5 IL-2
NS5 THY

FIG. 3

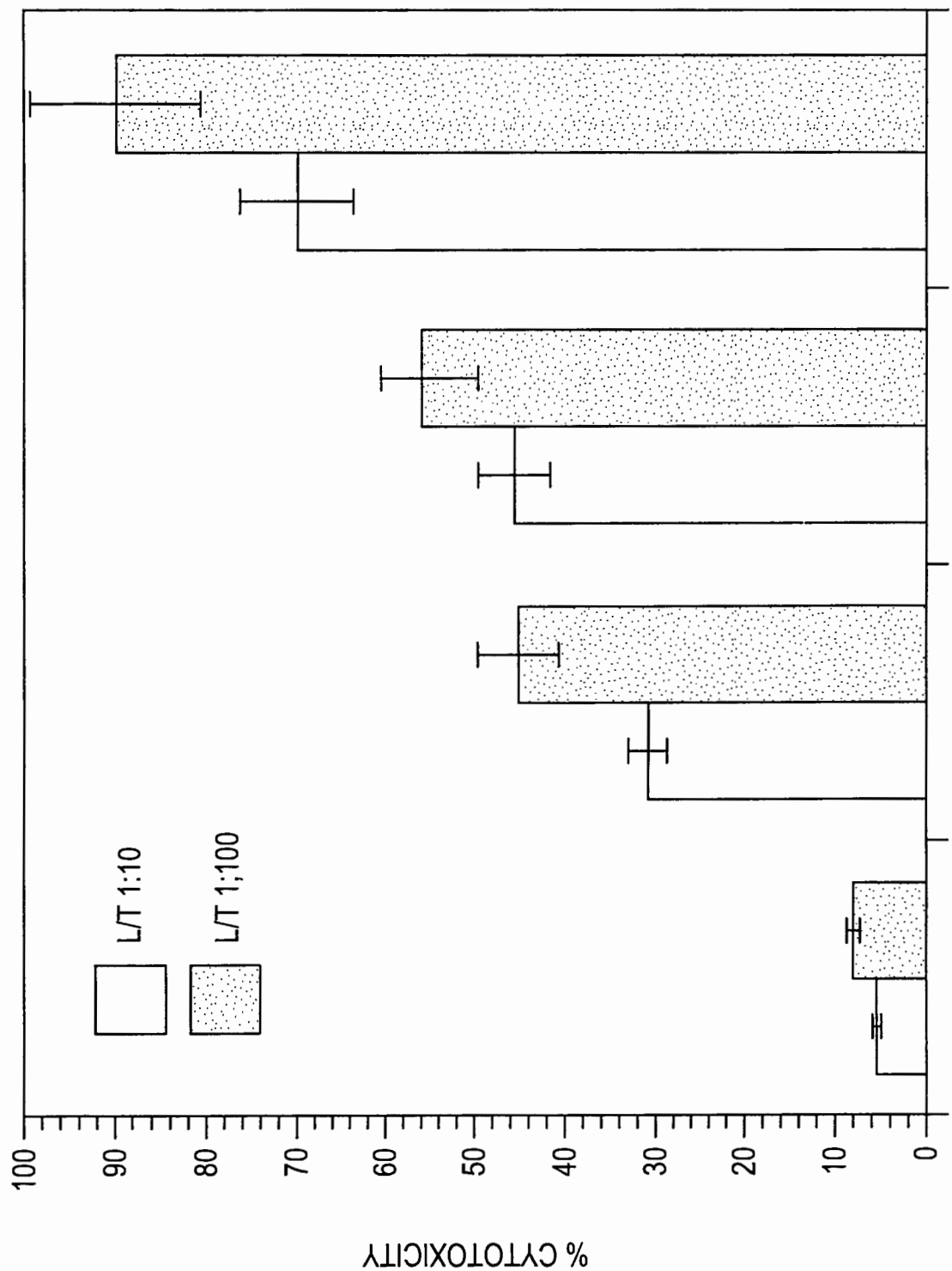

% CYTOTOXICITY
100
90
80
70
60
50
40
30
20
10
0
L/T 1:10
L/T 1;100
MOCK
NS5
NS5 IL-2
NS5 THY

FIG. 4