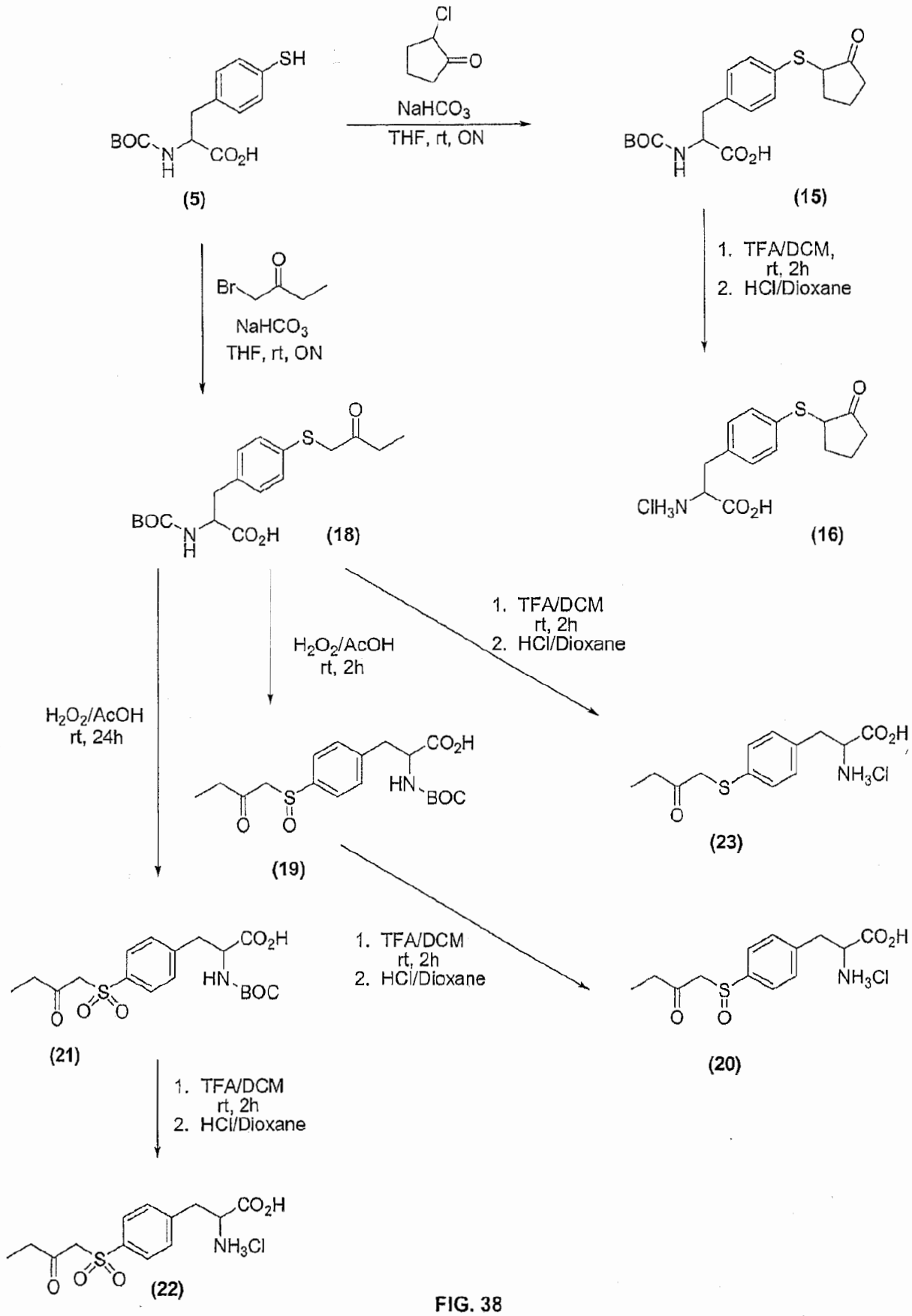

Cl
O
NaHCO3
THF, rt, ON
SH
BOC
N
H
CO2H
(5)
S
O
(15)
1. TFA/DCM,
rt, 2h
2. HCl/Dioxane
Br
O
NaHCO3
THF, rt, ON
(18)
ClH3N
(16)
1. TFA/DCM
rt, 2h
2. HCl/Dioxane
H2O2/AcOH
rt, 2h
H2O2/AcOH
rt, 24h
HN
BOC
(19)
NH3Cl
(23)
(21)
(20)
1. TFA/DCM
rt, 2h
2. HCl/Dioxane
(22)

FIG. 38