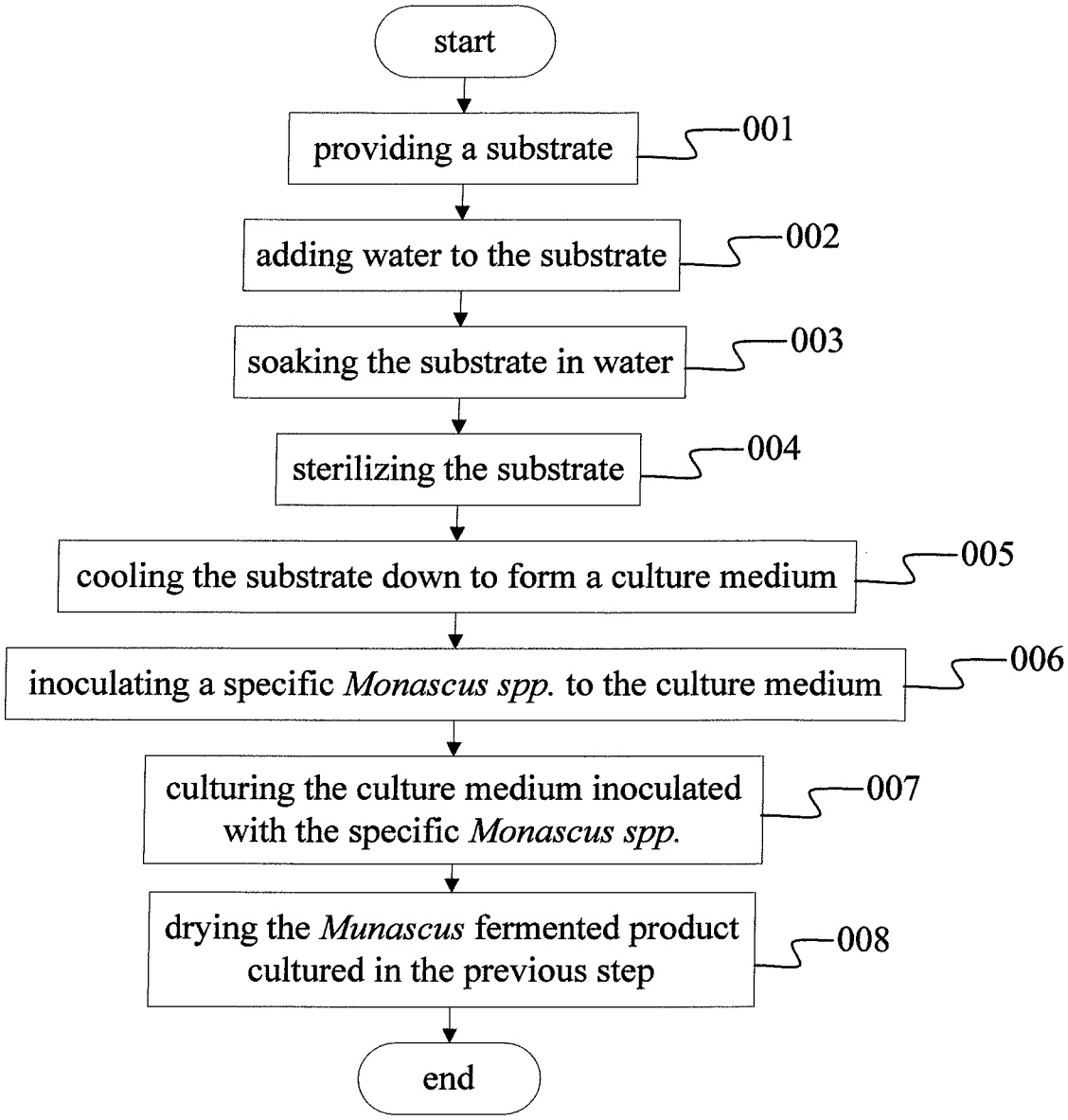

start
providing a substrate
001
adding water to the substrate
002
soaking the substrate in water
003
sterilizing the substrate
004
cooling the substrate down to form a culture medium
005
inoculating a specific *Monascus spp.* to the culture medium
006
culturing the culture medium inoculated with the specific *Monascus spp.*
007
drying the *Munascus* fermented product cultured in the previous step
008
end

FIG. 1

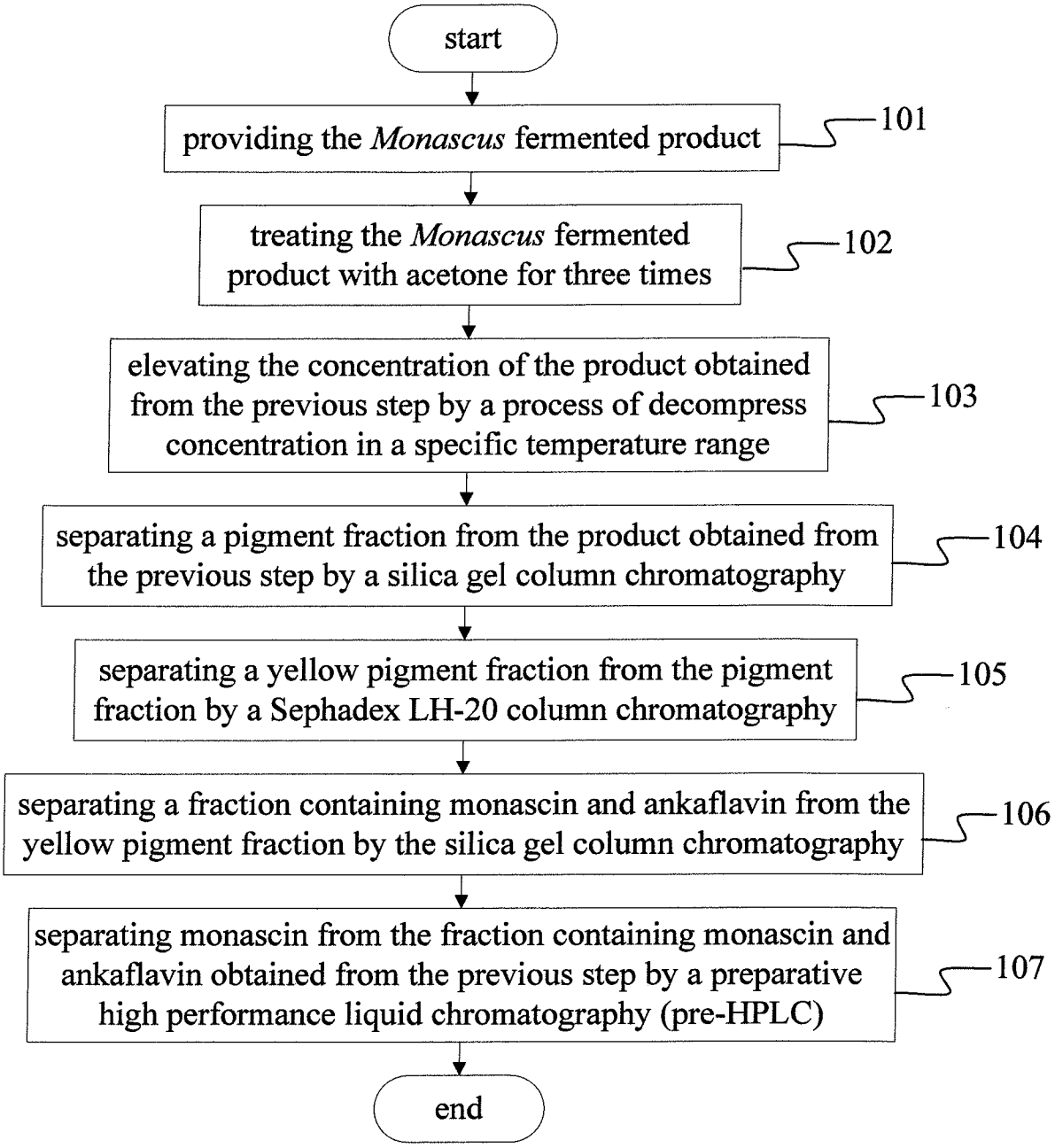

start
providing the *Monascus* fermented product
101
treating the *Monascus* fermented product with acetone for three times
102
elevating the concentration of the product obtained from the previous step by a process of decompress concentration in a specific temperature range
103
separating a pigment fraction from the product obtained from the previous step by a silica gel column chromatography
104
separating a yellow pigment fraction from the pigment fraction by a Sephadex LH-20 column chromatography
105
separating a fraction containing monascin and ankaflavin from the yellow pigment fraction by the silica gel column chromatography
106
separating monascin from the fraction containing monascin and ankaflavin obtained from the previous step by a preparative high performance liquid chromatography (pre-HPLC)
107
end

FIG. 2

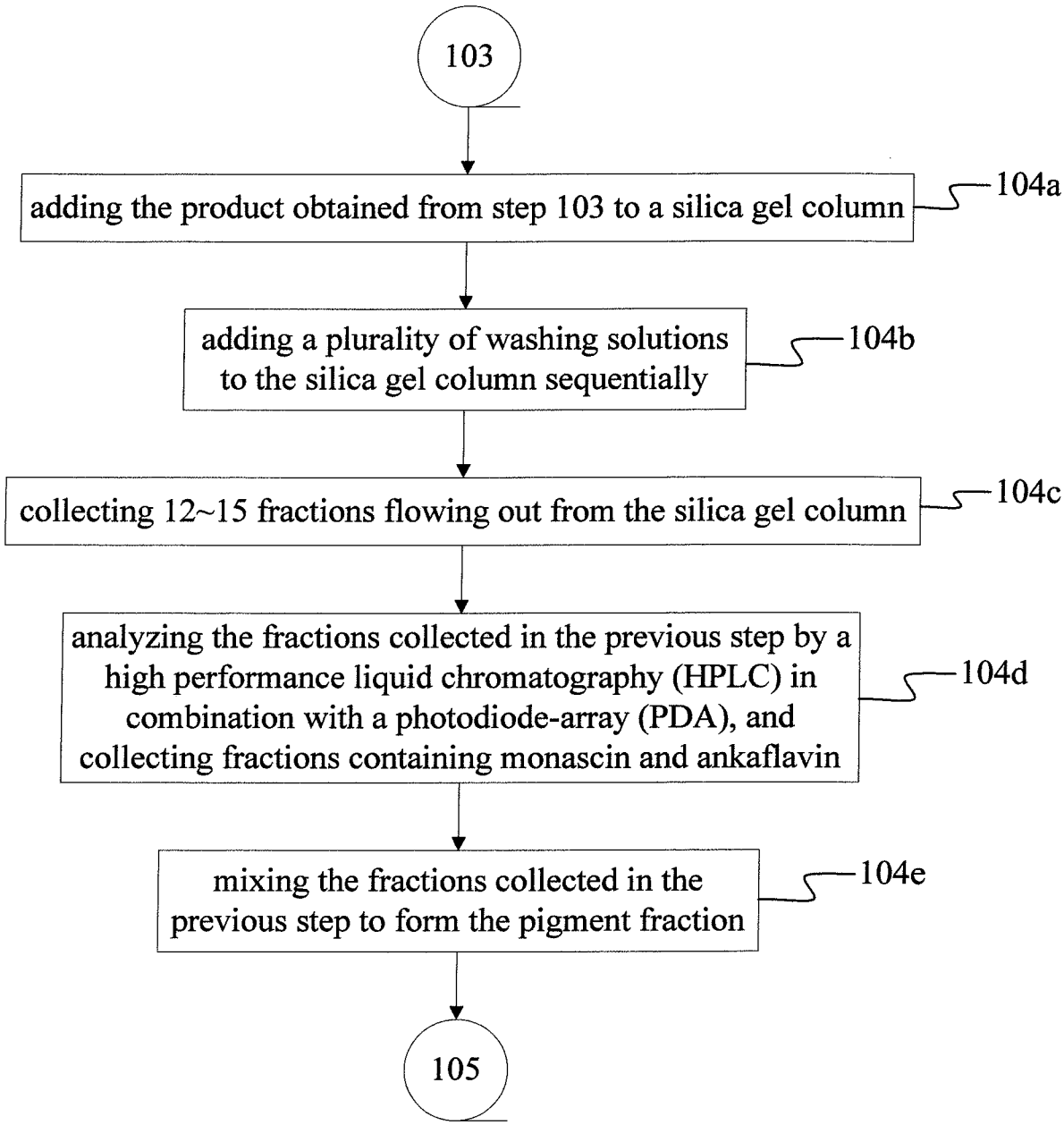

103
adding the product obtained from step 103 to a silica gel column
104a
adding a plurality of washing solutions to the silica gel column sequentially
104b
collecting 12~15 fractions flowing out from the silica gel column
104c
analyzing the fractions collected in the previous step by a high performance liquid chromatography (HPLC) in combination with a photodiode-array (PDA), and collecting fractions containing monascin and ankaflavin
104d
mixing the fractions collected in the previous step to form the pigment fraction
104e
105

FIG. 3

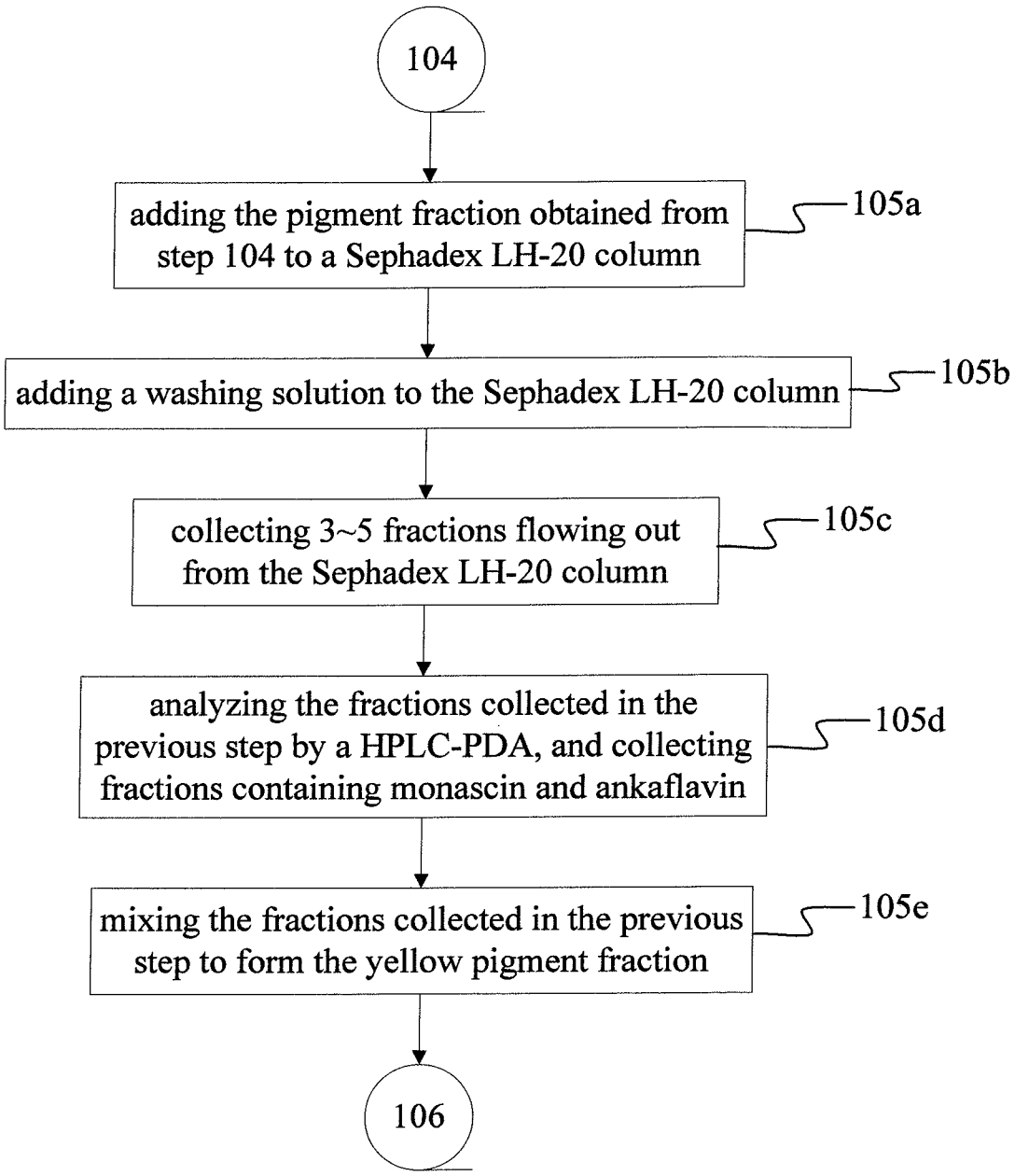

104
adding the pigment fraction obtained from step 104 to a Sephadex LH-20 column
105a
adding a washing solution to the Sephadex LH-20 column
105b
collecting 3~5 fractions flowing out from the Sephadex LH-20 column
105c
analyzing the fractions collected in the previous step by a HPLC-PDA, and collecting fractions containing monascin and ankaflavin
105d
mixing the fractions collected in the previous step to form the yellow pigment fraction
105e
106

FIG. 4

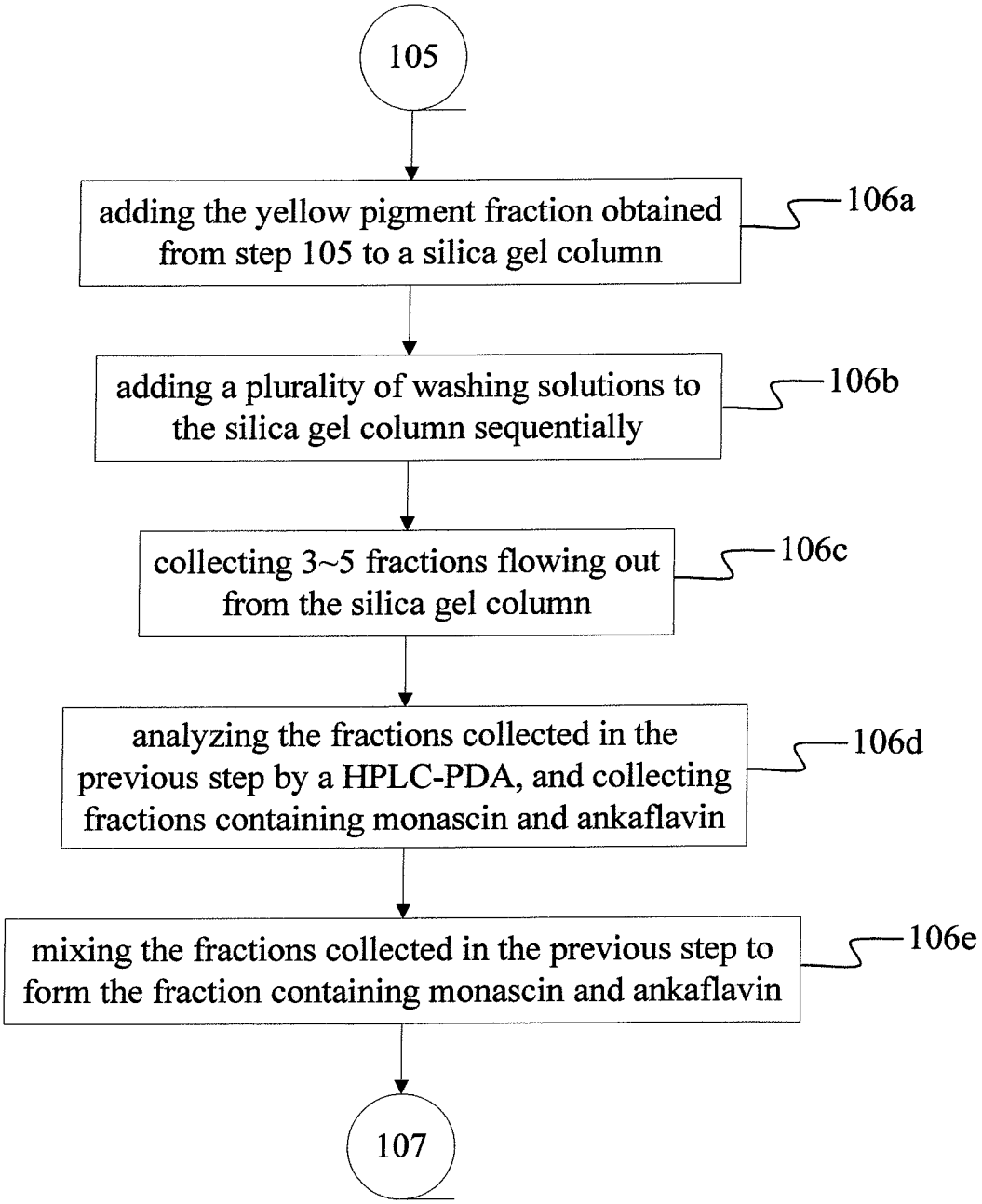

105
adding the yellow pigment fraction obtained from step 105 to a silica gel column
106a
adding a plurality of washing solutions to the silica gel column sequentially
106b
collecting 3~5 fractions flowing out from the silica gel column
106c
analyzing the fractions collected in the previous step by a HPLC-PDA, and collecting fractions containing monascin and ankaflavin
106d
mixing the fractions collected in the previous step to form the fraction containing monascin and ankaflavin
106e
107

FIG. 5

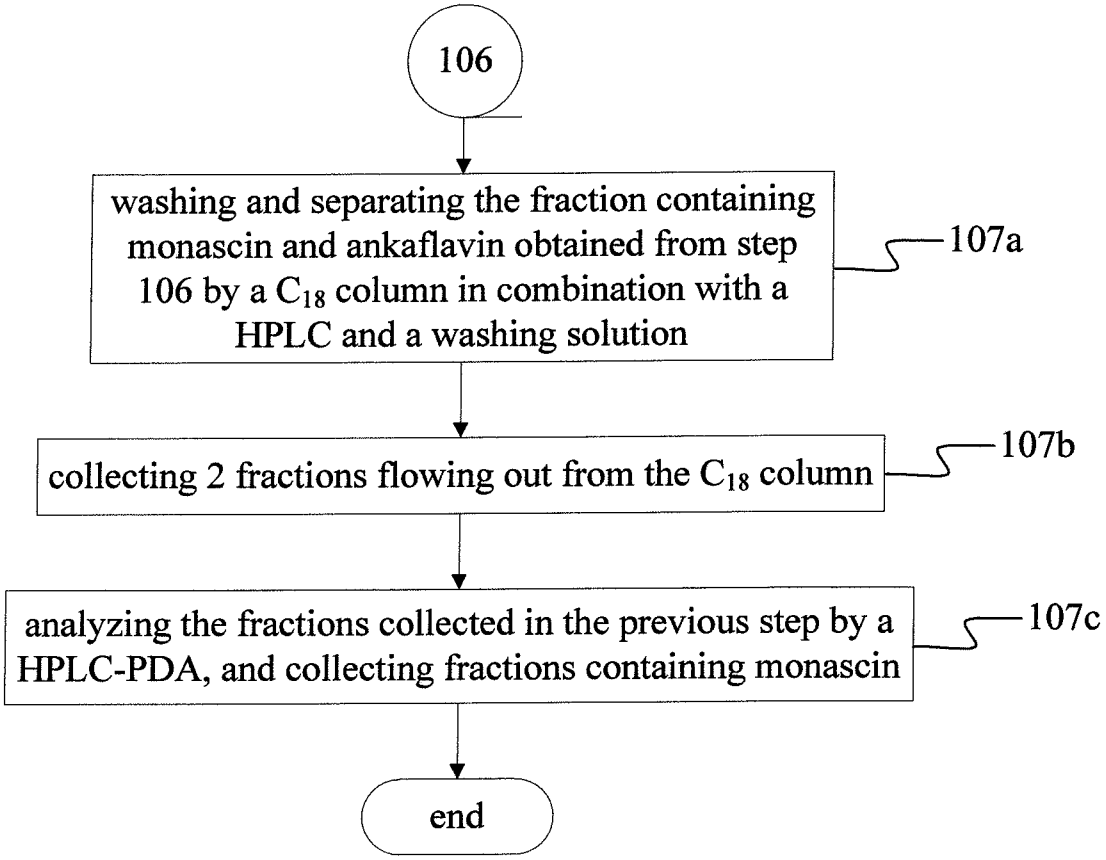

106
washing and separating the fraction containing monascin and ankaflavin obtained from step 106 by a C_{18} column in combination with a HPLC and a washing solution
107a
collecting 2 fractions flowing out from the C_{18} column
107b
analyzing the fractions collected in the previous step by a HPLC-PDA, and collecting fractions containing monascin
107c
end

FIG. 6

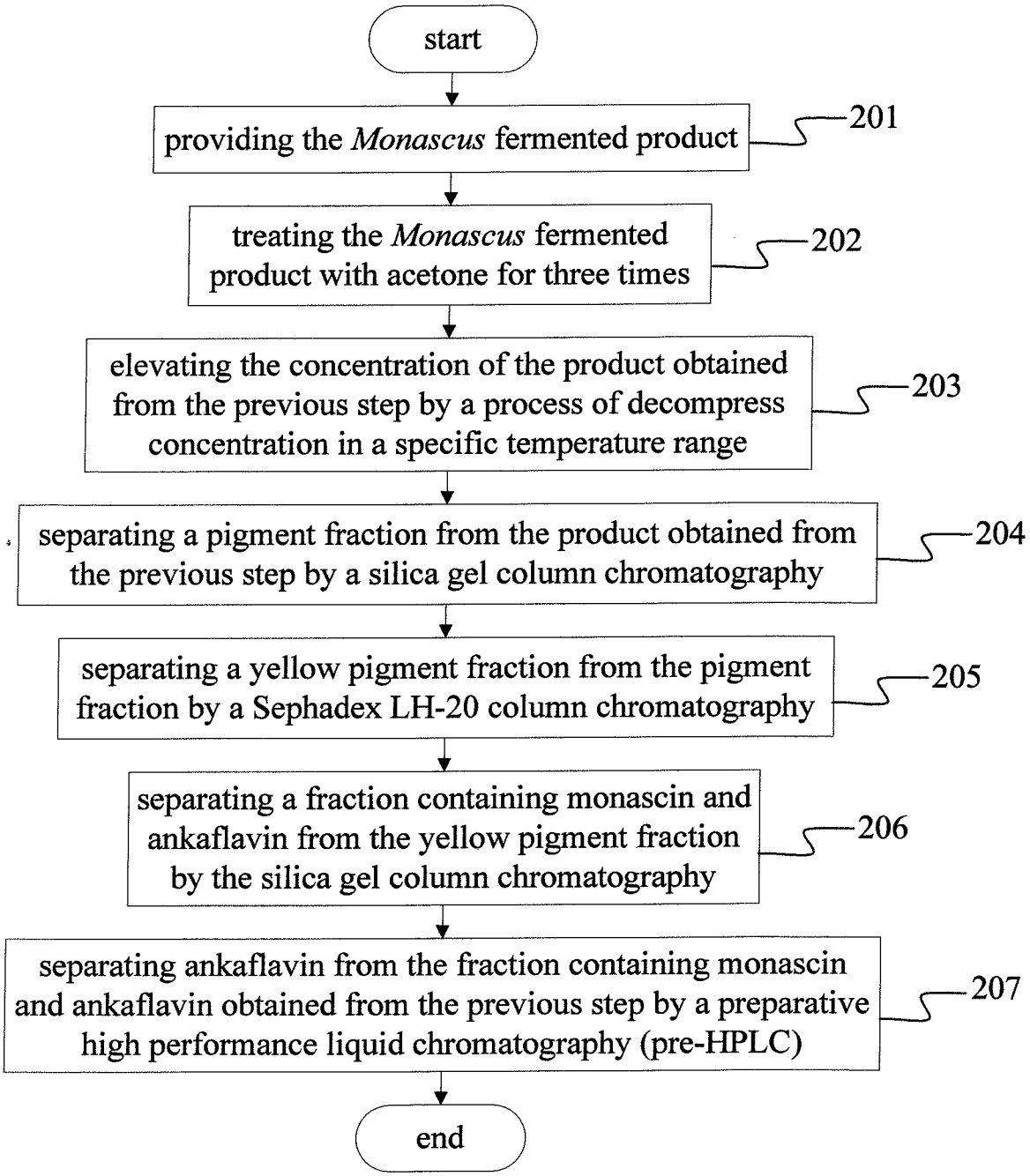

start
providing the *Monascus* fermented product
201
treating the *Monascus* fermented product with acetone for three times
202
elevating the concentration of the product obtained from the previous step by a process of decompress concentration in a specific temperature range
203
separating a pigment fraction from the product obtained from the previous step by a silica gel column chromatography
204
separating a yellow pigment fraction from the pigment fraction by a Sephadex LH-20 column chromatography
205
separating a fraction containing monascin and ankaflavin from the yellow pigment fraction by the silica gel column chromatography
206
separating ankaflavin from the fraction containing monascin and ankaflavin obtained from the previous step by a preparative high performance liquid chromatography (pre-HPLC)
207
end

FIG. 7

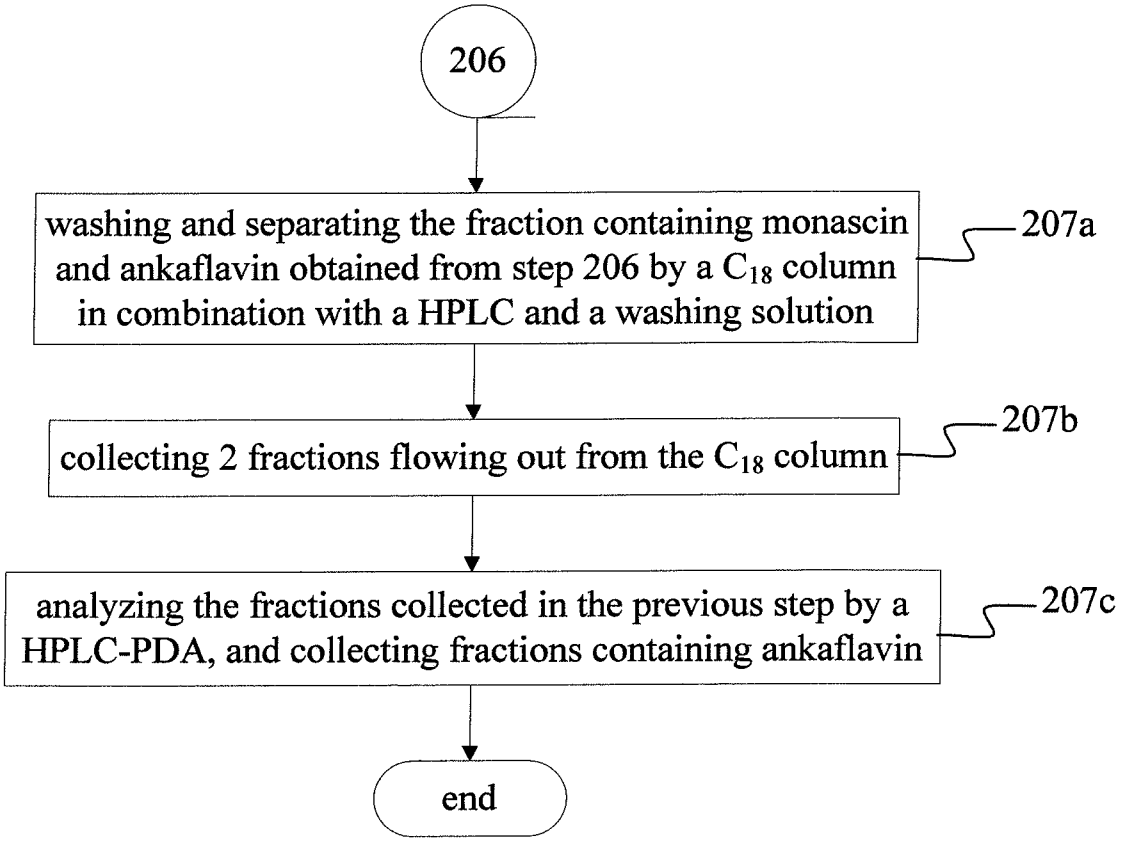

206
washing and separating the fraction containing monascin and ankaflavin obtained from step 206 by a C_{18} column in combination with a HPLC and a washing solution
207a
collecting 2 fractions flowing out from the C_{18} column
207b
analyzing the fractions collected in the previous step by a HPLC-PDA, and collecting fractions containing ankaflavin
207c
end

FIG. 8

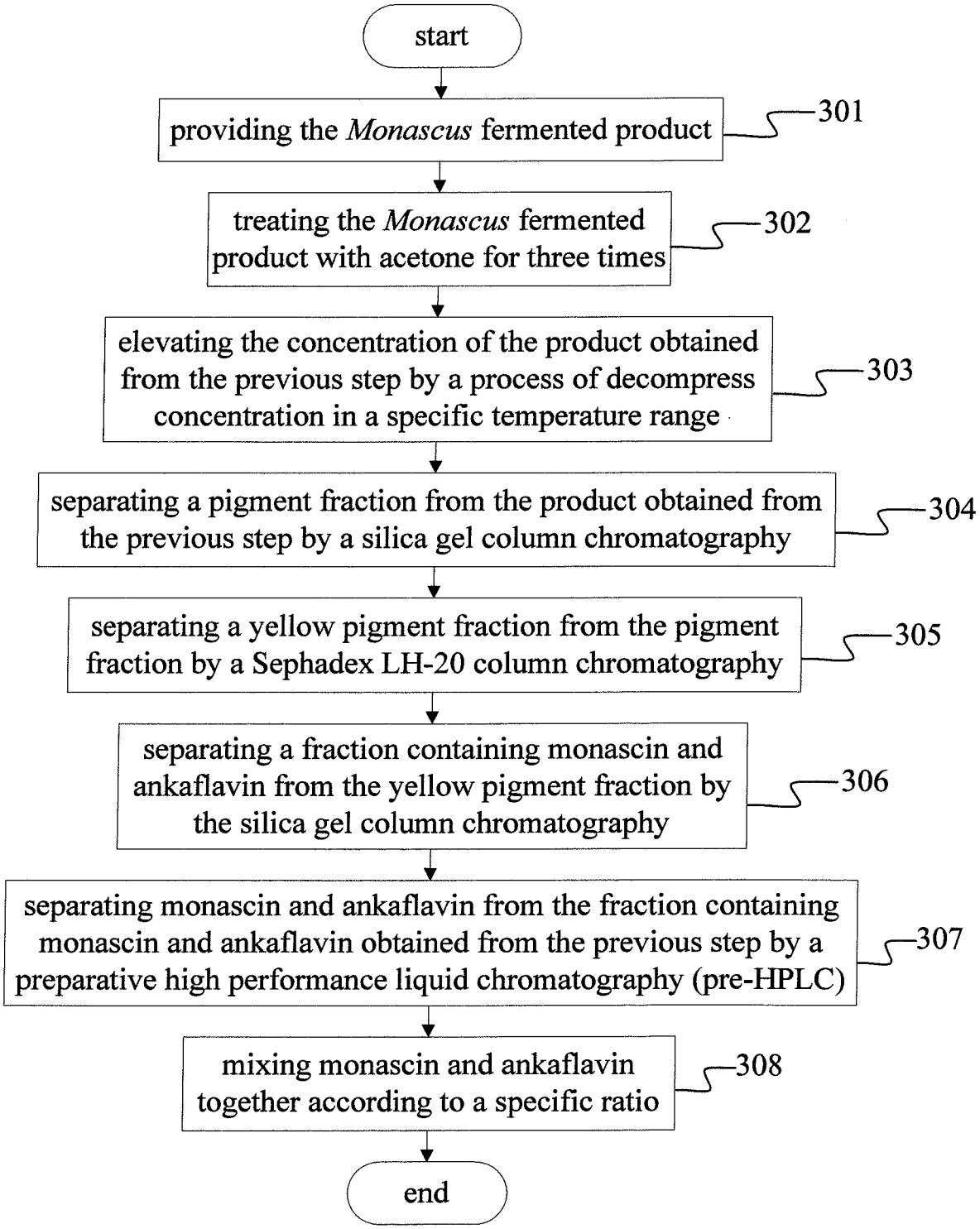

start
providing the *Monascus* fermented product
301
treating the *Monascus* fermented product with acetone for three times
302
elevating the concentration of the product obtained from the previous step by a process of decompress concentration in a specific temperature range
303
separating a pigment fraction from the product obtained from the previous step by a silica gel column chromatography
304
separating a yellow pigment fraction from the pigment fraction by a Sephadex LH-20 column chromatography
305
separating a fraction containing monascin and ankaflavin from the yellow pigment fraction by the silica gel column chromatography
306
separating monascin and ankaflavin from the fraction containing monascin and ankaflavin obtained from the previous step by a preparative high performance liquid chromatography (pre-HPLC)
307
mixing monascin and ankaflavin together according to a specific ratio
308
end

FIG. 9

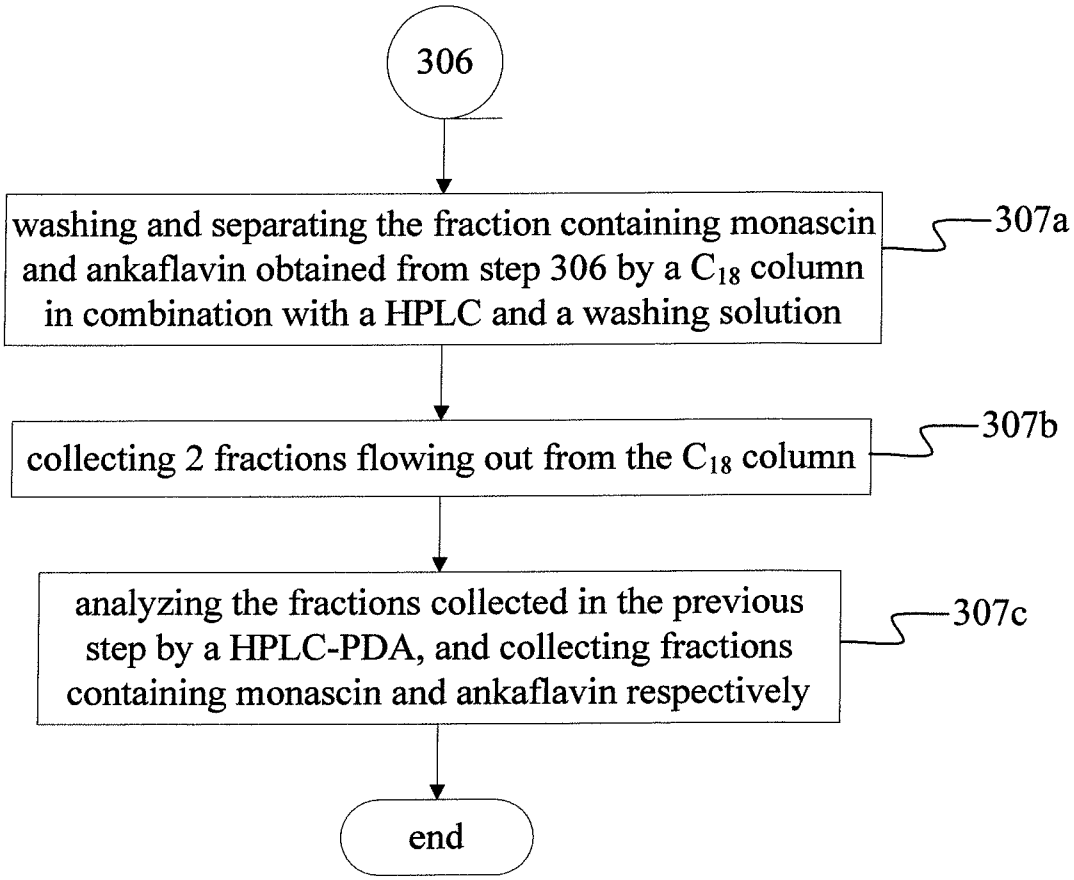

306
washing and separating the fraction containing monascin and ankaflavin obtained from step 306 by a C_{18} column in combination with a HPLC and a washing solution
307a
collecting 2 fractions flowing out from the C_{18} column
307b
analyzing the fractions collected in the previous step by a HPLC-PDA, and collecting fractions containing monascin and ankaflavin respectively
307c
end

FIG. 10

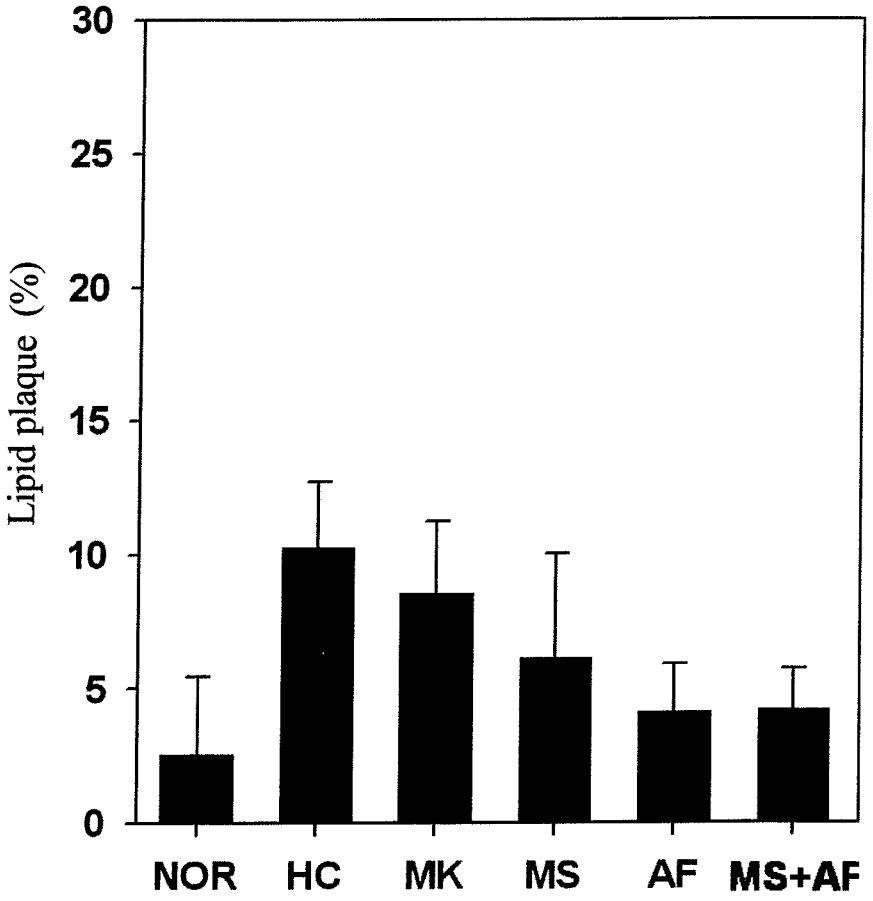


FIG. 11

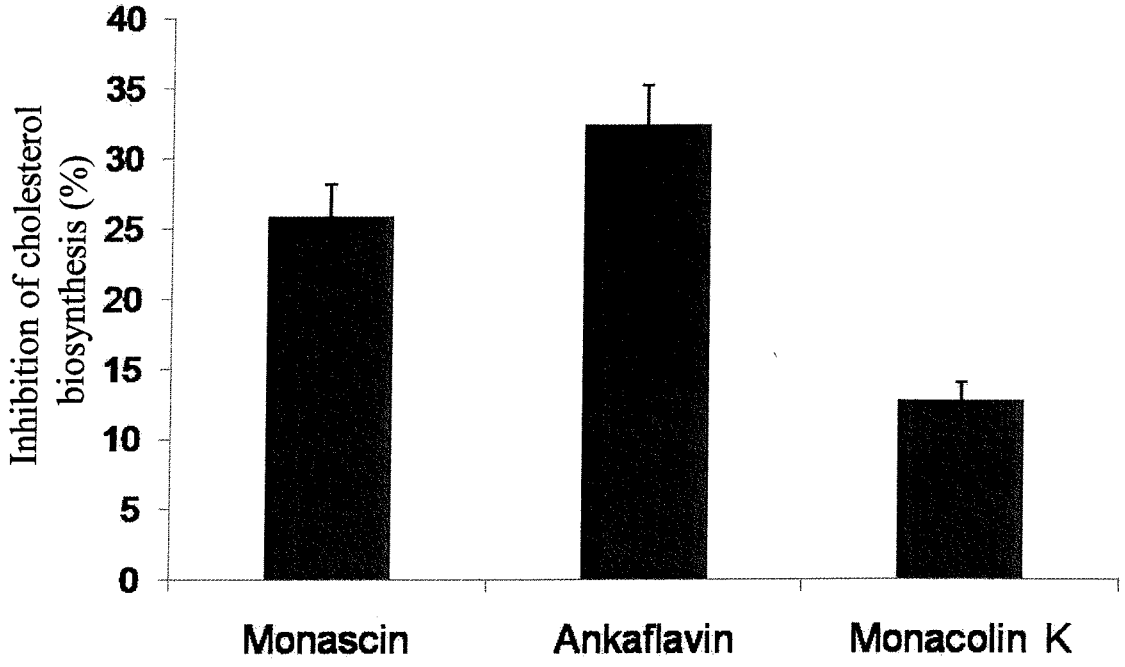

Inhibition of cholesterol biosynthesis (%)
40
35
30
25
20
15
10
5
0
Monascin
Ankaflavin
Monacolin K

FIG. 12