
HA backbone
EGCG
Protein
Self assembly in dilute aqueous solution
HA-EGCG/protein
< 100nm

FIGURE 1

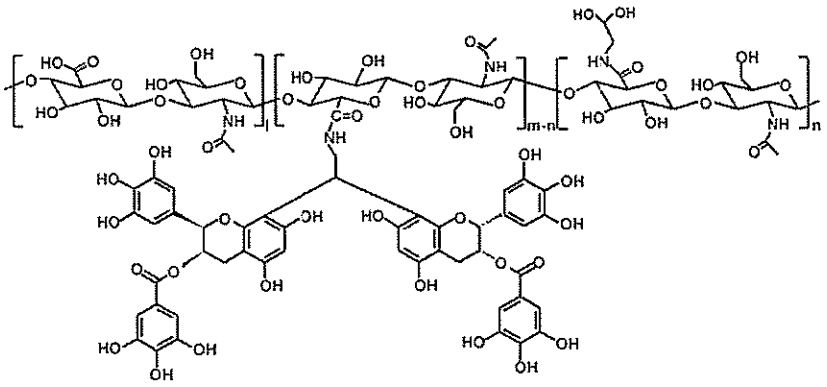


FIGURE 2

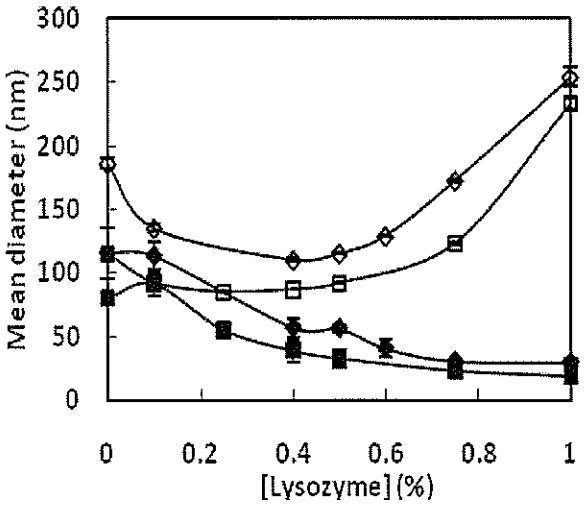

300
250
200
150
100
50
0
Mean diameter (nm)
0
0.2
0.4
0.6
0.8
1
[Lysozyme] (%)

FIGURE 3

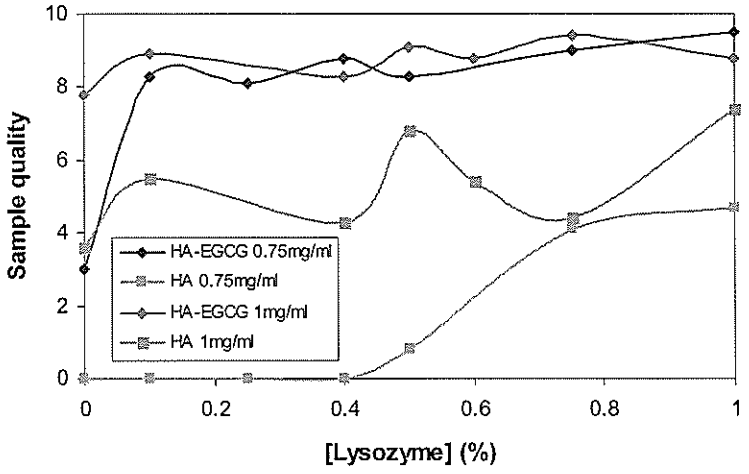

10
8
6
4
2
0
Sample quality
0
0.2
0.4
0.6
0.8
1
[Lysozyme] (%)
HA-EGCG 0.75mg/ml
HA 0.75mg/ml
HA-EGCG 1mg/ml
HA 1mg/ml

FIGURE 4

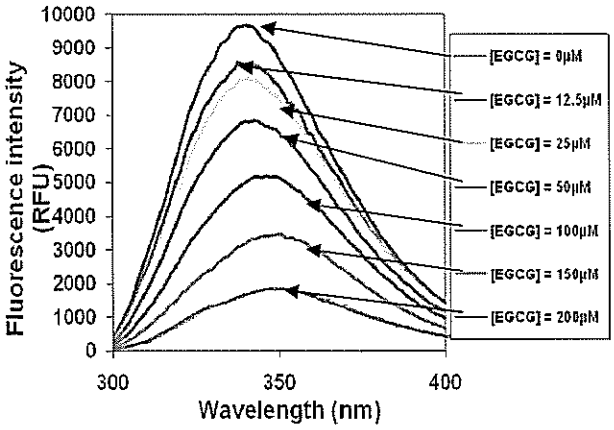

10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
Fluorescence intensity (RFU)
300
350
400
Wavelength (nm)
[EGCG] = 0μM
[EGCG] = 12.5μM
[EGCG] = 25μM
[EGCG] = 50μM
[EGCG] = 100μM
[EGCG] = 150μM
[EGCG] = 200μM

FIGURE 5

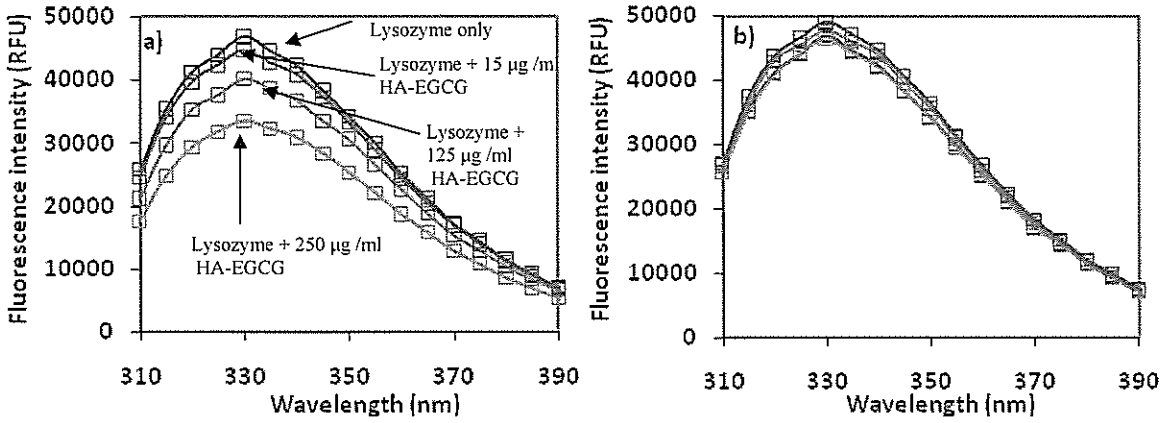

a)
Lysozyme only
Lysozyme + 15 µg /ml HA-EGCG
Lysozyme + 125 µg /ml HA-EGCG
Lysozyme + 250 µg /ml HA-EGCG
Fluorescence intensity (RFU)
50000
40000
30000
20000
10000
0
310
330
350
370
390
Wavelength (nm)
b)
Fluorescence intensity (RFU)
50000
40000
30000
20000
10000
0
310
330
350
370
390
Wavelength (nm)

FIGURE 6

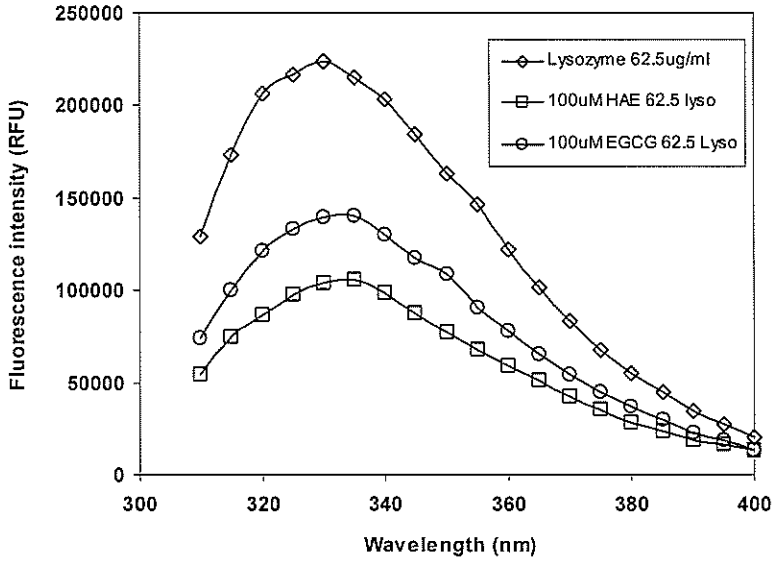

250000
200000
150000
100000
50000
0
300
320
340
360
380
400
Fluorescence intensity (RFU)
Wavelength (nm)
Lysozyme 62.5ug/ml
100uM HAE 62.5 lyso
100uM EGCG 62.5 Lyso

FIGURE 7

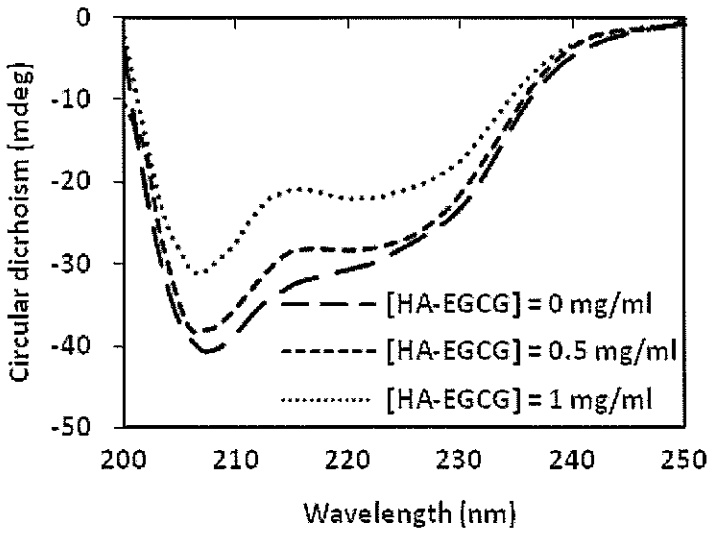

0
-10
-20
-30
-40
-50
Circular dichroism (mdeg)
200
210
220
230
240
250
Wavelength (nm)
[HA-EGCG] = 0 mg/ml
[HA-EGCG] = 0.5 mg/ml
[HA-EGCG] = 1 mg/ml

FIGURE 8

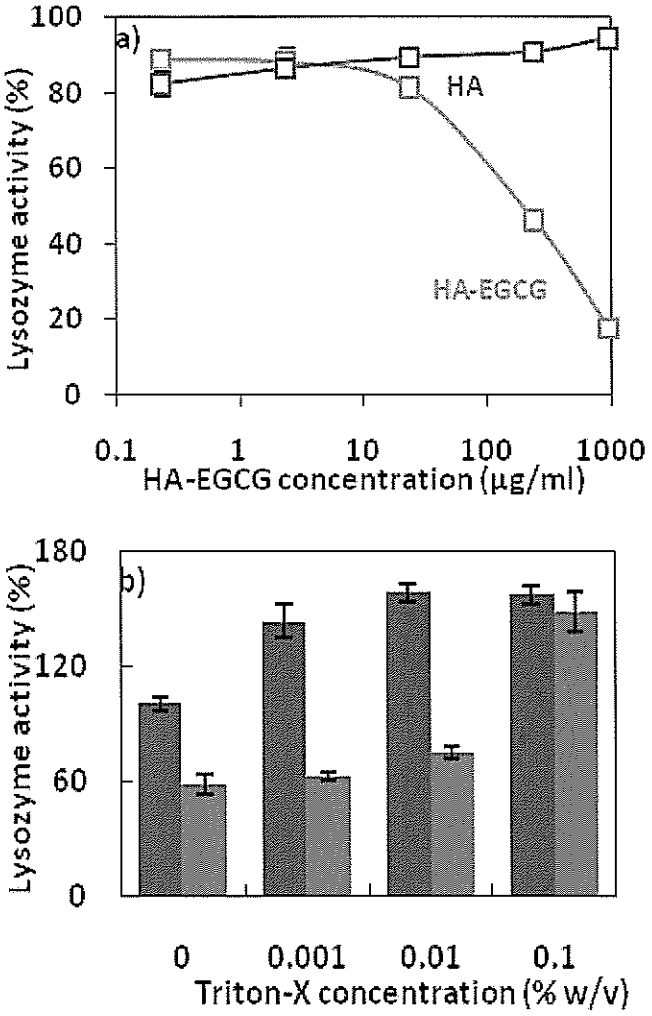

a)
HA
HA-EGCG
Lysozyme activity (%)
100
80
60
40
20
0
0.1
1
10
100
1000
HA-EGCG concentration (µg/ml)
b)
Lysozyme activity (%)
180
120
60
0
0
0.001
0.01
0.1
Triton-X concentration (% w/v)

FIGURE 9

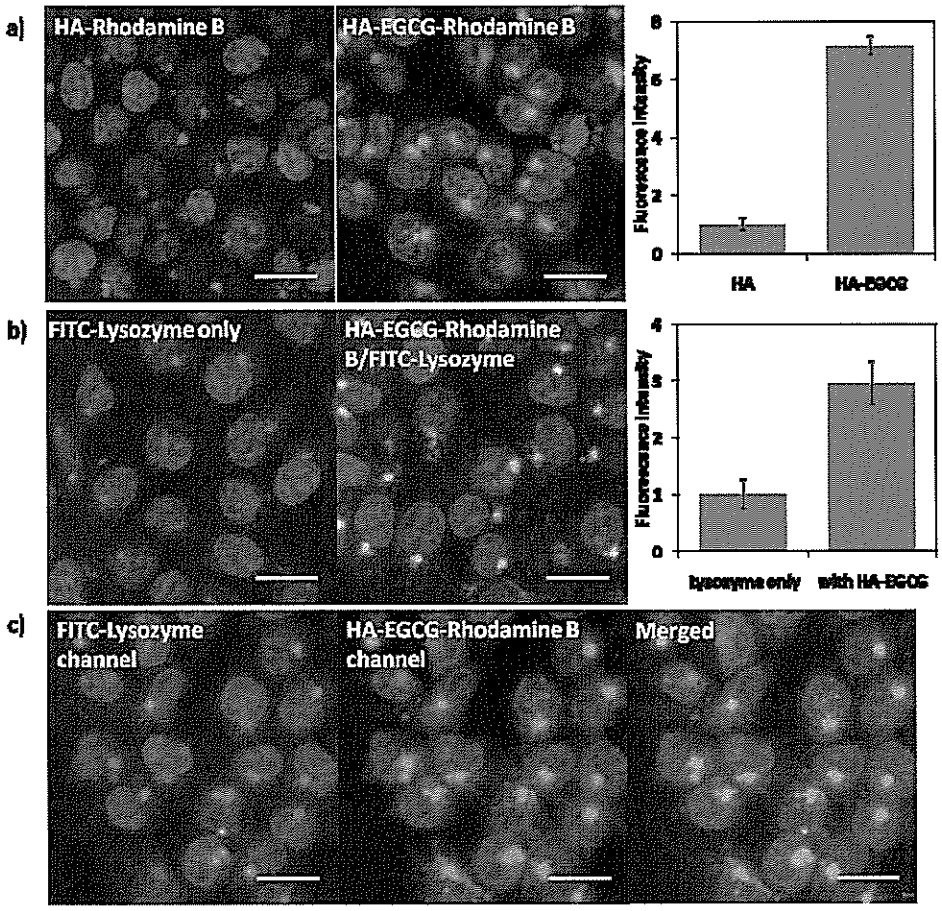

a)
HA-Rhodamine B
HA-EGCG-Rhodamine B
Fluorescence Intensity
0
2
4
6
8
HA
HA-EGCG
b)
FITC-Lysozyme only
HA-EGCG-Rhodamine B/FITC-Lysozyme
Fluorescence Intensity
0
1
2
3
4
Lysozyme only
with HA-EGCG
c)
FITC-Lysozyme channel
HA-EGCG-Rhodamine B channel
Merged

FIGURE 10

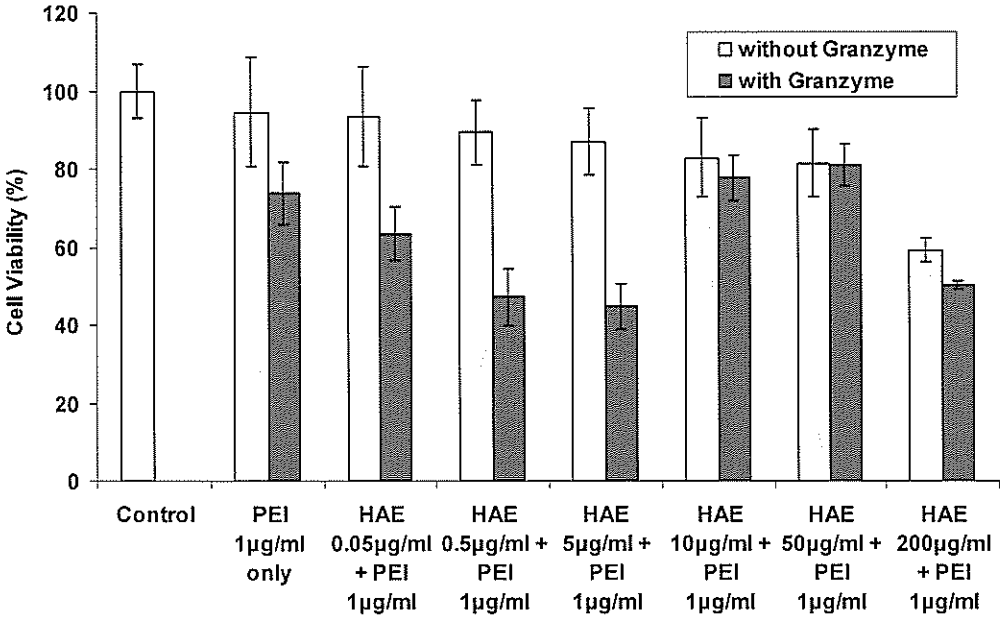

120
100
80
60
40
20
0
Cell Viability (%)
without Granzyme
with Granzyme
Control
PEI 1µg/ml only
HAE 0.05µg/ml + PEI 1µg/ml
HAE 0.5µg/ml + PEI 1µg/ml
HAE 5µg/ml + PEI 1µg/ml
HAE 10µg/ml + PEI 1µg/ml
HAE 50µg/ml + PEI 1µg/ml
HAE 200µg/ml + PEI 1µg/ml

FIGURE 11