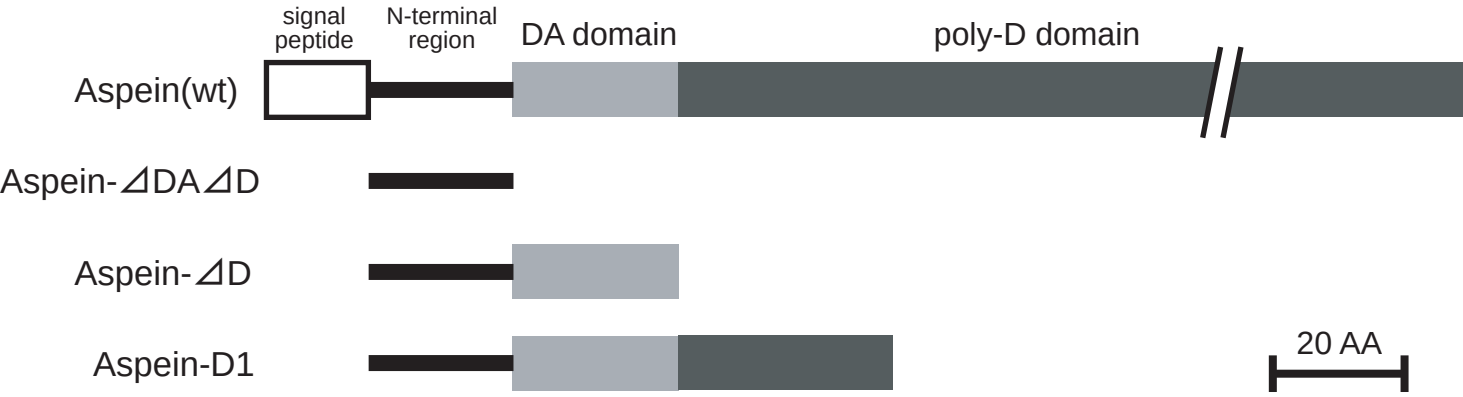

signal peptide
N-terminal region
DA domain
poly-D domain
Aspein(wt)
Aspein-⊿DA⊿D
Aspein-⊿D
Aspein-D1
20 AA

Figure 1.

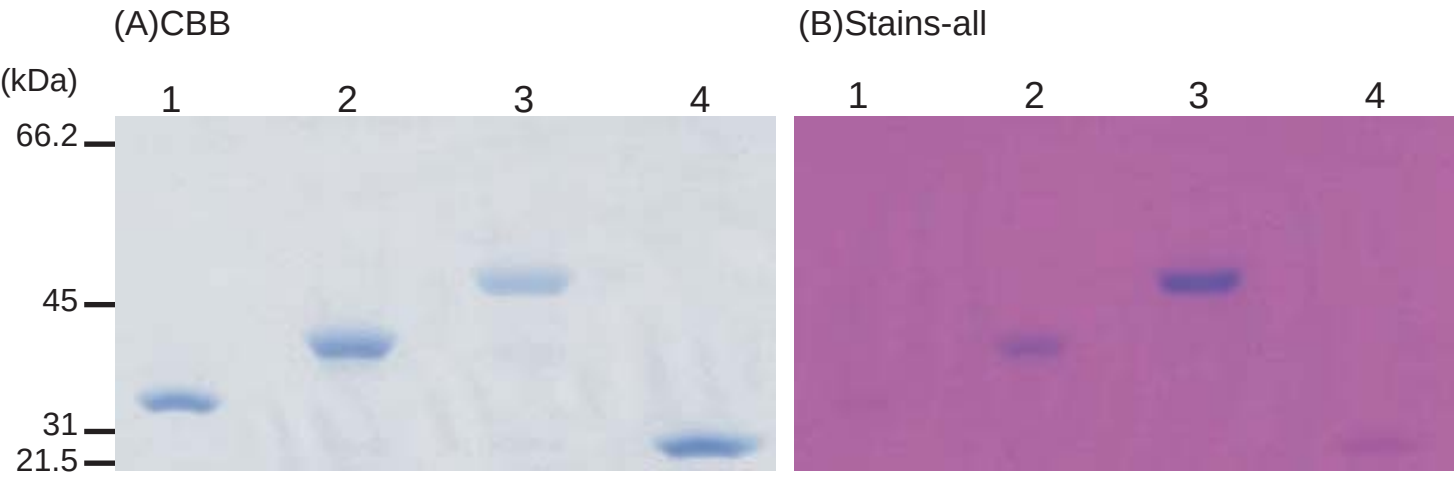



Figure 2.

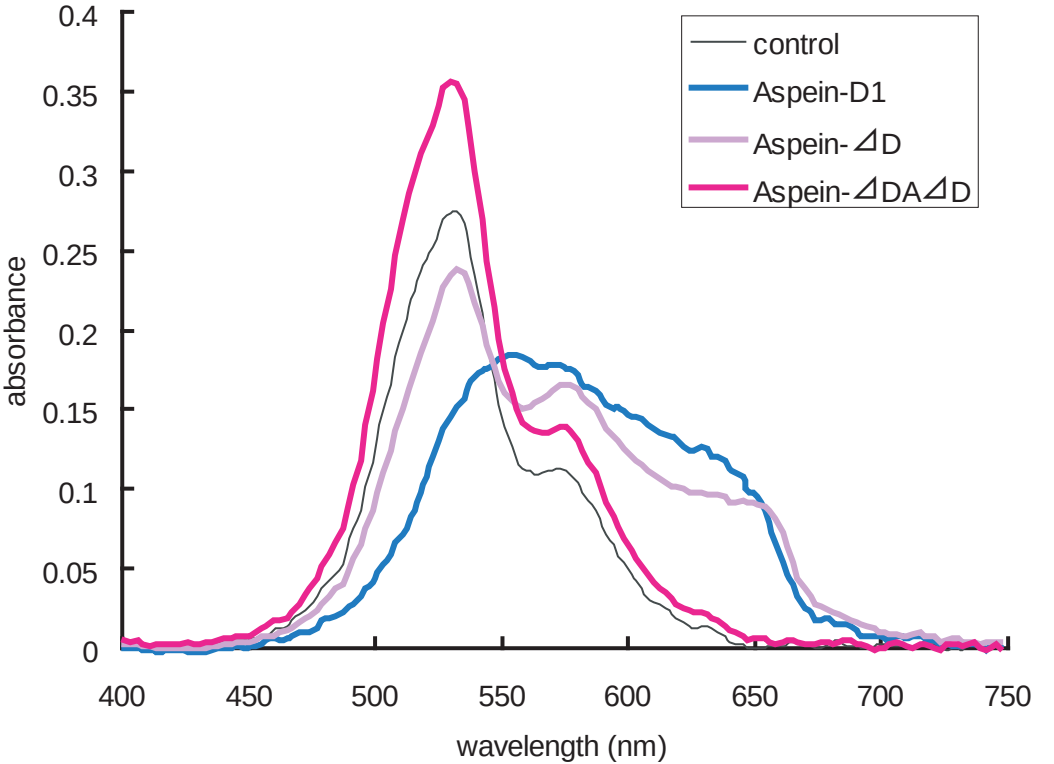

0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
absorbance
400
450
500
550
600
650
700
750
wavelength (nm)
control
Aspein-D1
Aspein-⊿D
Aspein-⊿DA⊿D

Figure 3.

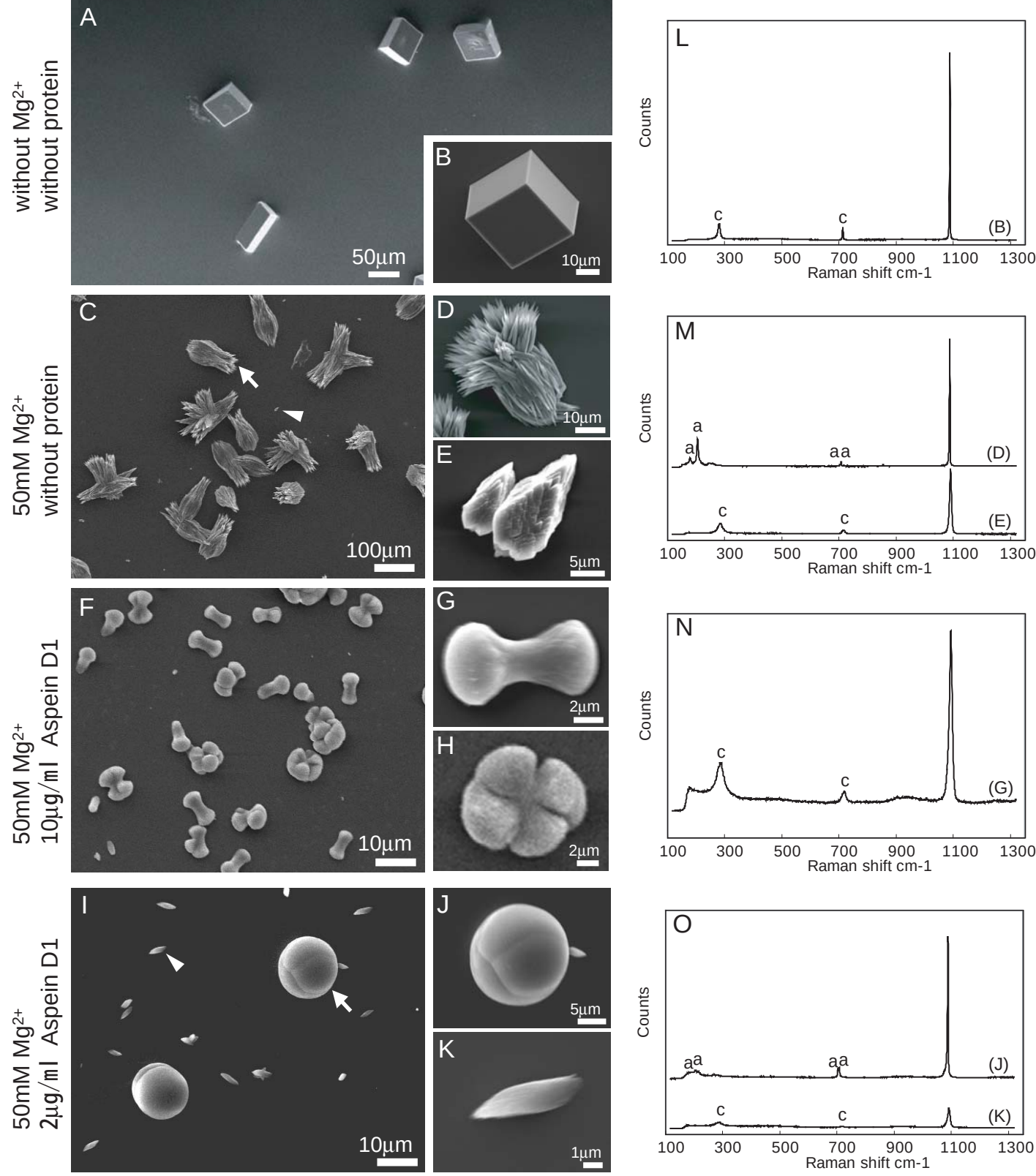

without Mg2+ without protein
50mM Mg2+ without protein
50mM Mg2+ 10µg/ml Aspein D1
50mM Mg2+ 2µg/ml Aspein D1
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
50µm
10µm
100µm
5µm
2µm
1µm
Counts
Raman shift cm-1
100 300 500 700 900 1100 1300
c
a
aa
(B)
(D)
(E)
(G)
(J)
(K)

Figure 4.

A
50μm
B
50μm