Table 1.

Calculated amounts of secondary structures of JHBP under different conditions. Three different algorithms were used (see Materials and Methods).

Condition	Method	α-Helices [%]	β-Sheet [%]	Turn [%]	Random coli [%]
Native	SELCON3	15	32	23	26
	CONTINLL	19	33	22	27
	CDSSTR	15	37	21	25
Oxidized	SELCON3	31	21	23	27
	CONTINLL	28	24	22	26
	CDSSTR	35	22	21	23
Crystal structure		33	39	28 (Turn + Random coil)	

Fig. 1.

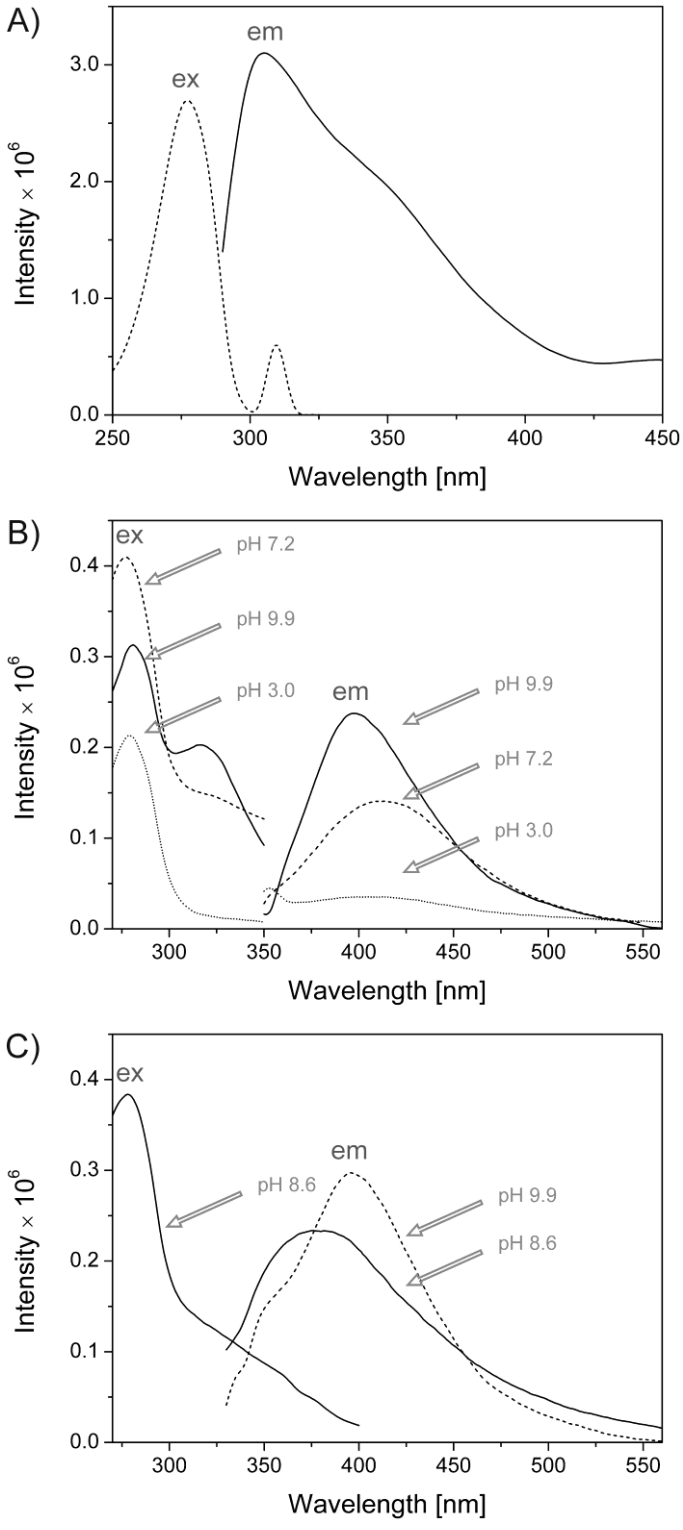

A)
em
ex
Intensity × 10^6
Wavelength [nm]
B)
ex
pH 7.2
pH 9.9
pH 3.0
em
pH 9.9
pH 7.2
pH 3.0
Intensity × 10^6
Wavelength [nm]
C)
ex
em
pH 8.6
pH 9.9
pH 8.6
Intensity × 10^6
Wavelength [nm]

Fig. 2.

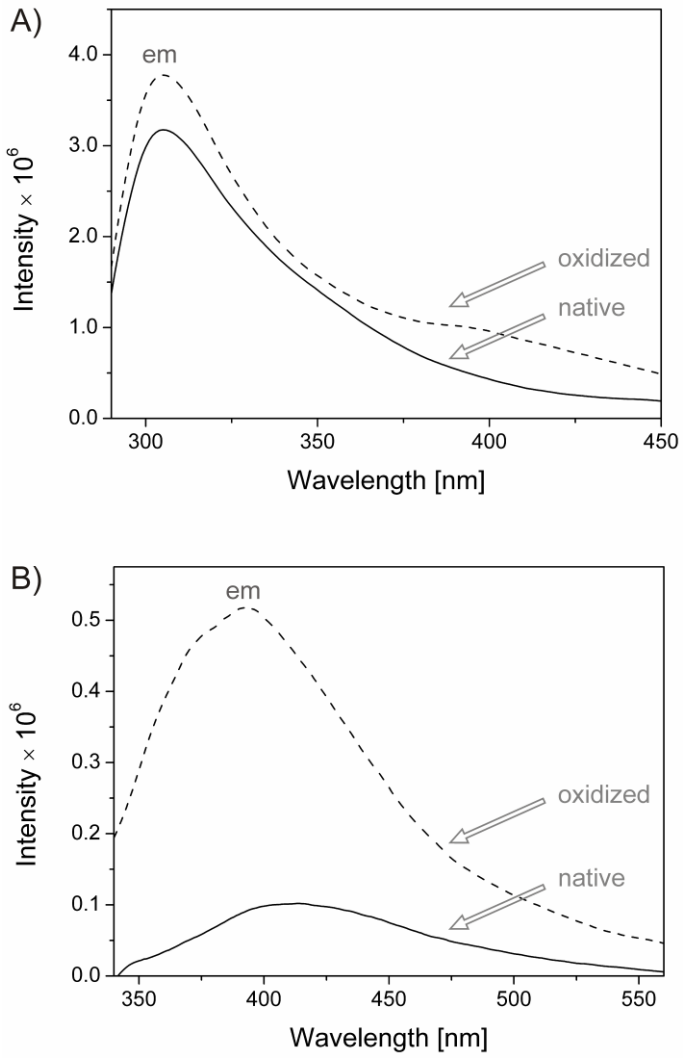

A)
em
oxidized
native
Intensity × 10^6
Wavelength [nm]
4.0
3.0
2.0
1.0
0.0
300
350
400
450
B)
em
oxidized
native
Intensity × 10^6
Wavelength [nm]
0.5
0.4
0.3
0.2
0.1
0.0
350
400
450
500
550

Fig. 3.

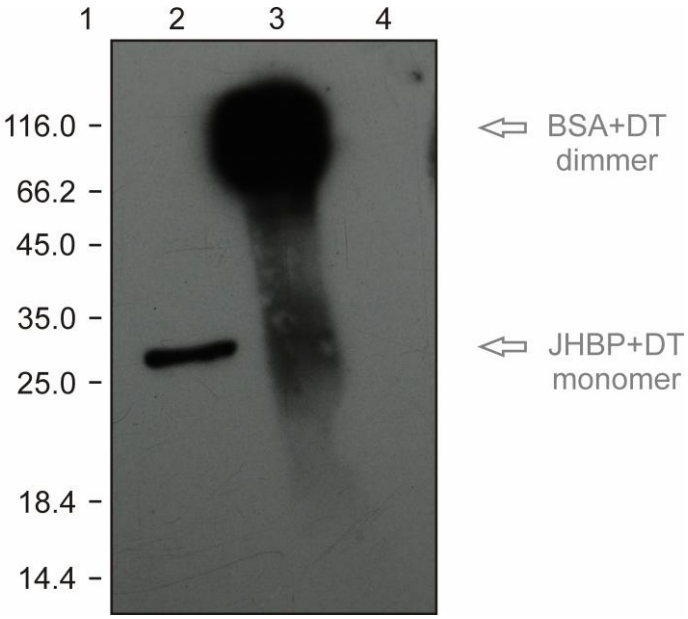

1
2
3
4
116.0
66.2
45.0
35.0
25.0
18.4
14.4
BSA+DT
dimmer
JHBP+DT
monomer

Fig. 4.

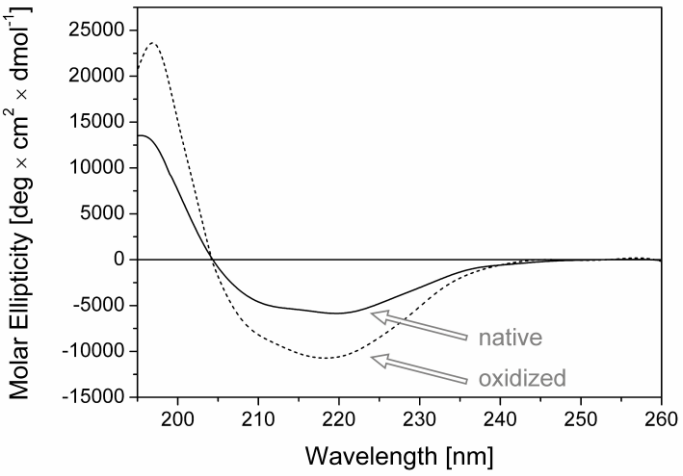
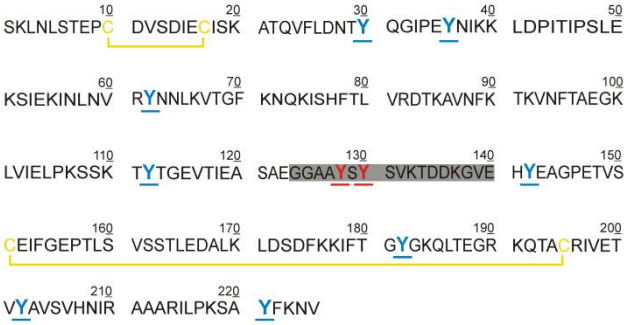

Molar Ellipticity [deg × cm^2 × dmol^{-1}]
25000
20000
15000
10000
5000
0
-5000
-10000
-15000
200
210
220
230
240
250
260
Wavelength [nm]
native
oxidized

Fig. 5.

A)


SKLNLSTEPC DVSDIECISK ATQVFLDNTY QGIPEYNIKK LDPITIPSLE
KSIEKINLNV RYNNLKVTGF KNQKISHFTL VRDTKAVNFK TKVNFTAEGK
LVIELPKSSK TYTGEVTIEA SAEGGAAYSY SVKTDDKGVE HYEAGPETVS
CEIFGEPTLS VSSTLEDALK LDSDFKKIFT GYGKQLTEGR KQTACRIVET
VYAVSVHNIR AAARILPKSA YFKNV

B)

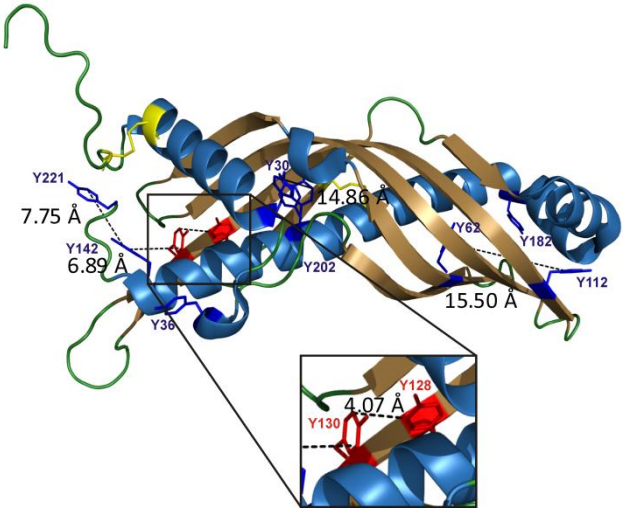
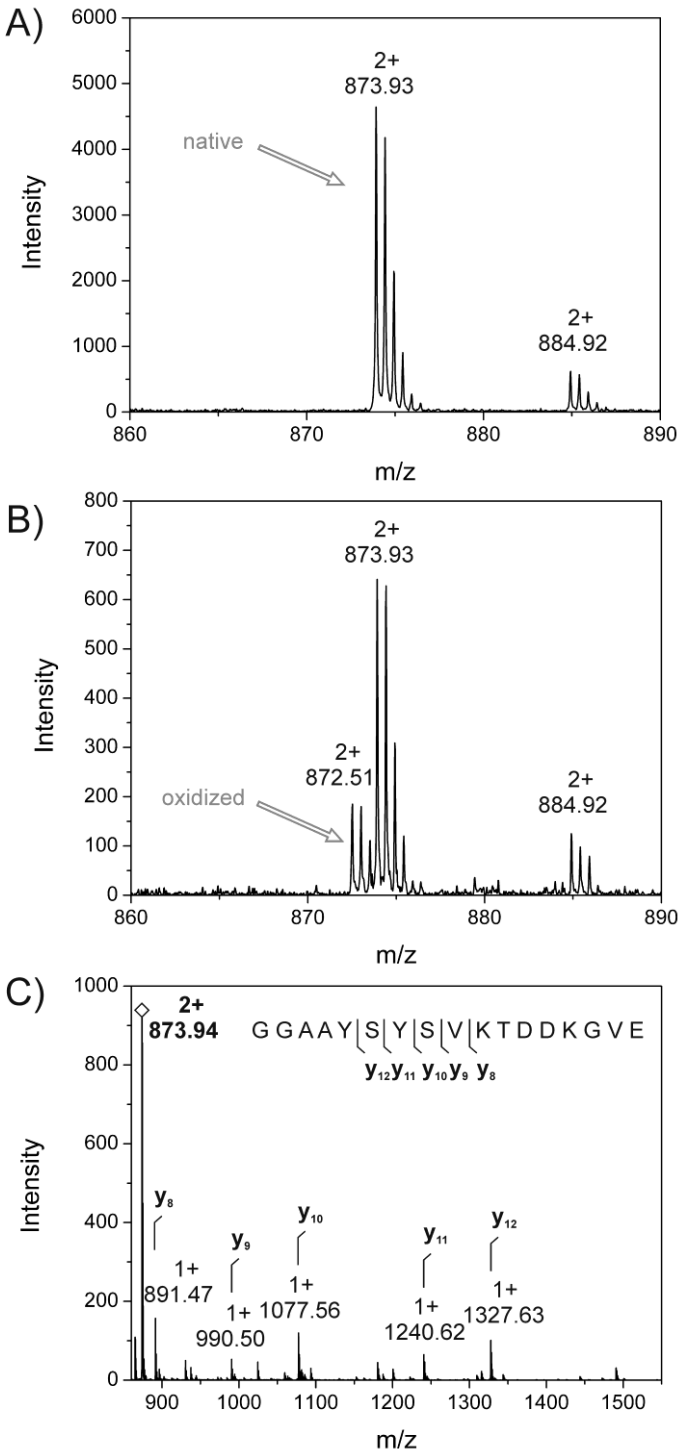

Y221
7.75 Å
Y142
6.89 Å
Y36
Y30
14.86 Å
Y202
Y62
Y182
15.50 Å
Y112
Y128
4.07 Å
Y130

Fig. 6.


A)
Intensity
m/z
2+
873.93
native
2+
884.92
B)
Intensity
m/z
2+
873.93
2+
872.51
oxidized
2+
884.92
C)
Intensity
m/z
2+
873.94
G G A A Y S Y S V K T D D K G V E
y12 y11 y10 y9 y8
y8
1+
891.47
y9
1+
990.50
y10
1+
1077.56
y11
1+
1240.62
y12
1+
1327.63