SUPPLEMENTARY INFORMATION

A common β-sheet architecture underlies *in vitro* and *in vivo* β_2-microglobulin amyloid fibrils.

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Supplementary Table 1: FTIR amide I' absorbance maxima of native β-sheet proteins as shown in Figure 5 of the above article.

Sample	Amide I' max. (cm^{-1})	Reference
TTR	1630	(1)
GFP	1630	(2)
L-FABP	1631	(3)
SNase	1631	(4)
TNF-α	1632	(5)
Choleratoxin subunit	1632	(6)
SAP	1633	(7)
CRP	1633	(7)
β-lactoglobulin	1634	(8)
Tendamistat	1635	(9)
PPE	1636	(10)
RNaseA	1637	(11)
CTX III	1638	(12)
SMA light chain	1638	(13)
BIF light chain	1638	(14)
LEN light chain	1638	(15)
Avidin	1638	(16)
nFGF-1	1639	(17)
bFGF	1643	(18)
PDGF	1643	(19)

Supplementary Table 2: FTIR amide I' absorbance maxima for amyloid-like fibrils formed *in vitro* from different proteins and peptides[1,2] as shown in Figure 5 of the above article.

Sample	Amide I' maximum (cm^{-1})	Fibril growth condition*	Reference
PolyK	1611	pH 11.2, 65°C	(20)
AcP	1613	25% (v/v) TFE, pD 5.5, 25°C	(21)
Lysozyme (WT)	1614	pD 1.5, 45°C	(22)
PolyT	1614	pH 9.0, 65°C	(20)
TTR	1615	pD 2.0, 37°C	(1)
Endostatin	1615	pD 6.0, 37°C	(23)
ApoA-1 (1-93)	1615	pD 4.0	(24)
ADA2h	1615	pD 3.0, 90°C	(25)
$P53^{tet}$	1616	pH 4.0, 95°C	(26)
PolyE	1616	pH 4.1, 95°C	(20)
Apomyoglobin	1617	pH 9.0, 65°C	(27)
Abri peptide	1617	pH 9.0, 37°C	(28)
Adenovirus fibre peptide	1618	pure D_2O	(29)
SH3	1618	pH 1.2, 35°C	(30)
α-chymotrypsin	1619	35% (v/v) TFE, 25°C	(31)
PrP (106-126)	1620	pH 6.5, 25°C	(32)
Amylin (21-29)	1620	pD 5.5	(33)
β-lactoglobulin	1620	50% (v/v) ethanol, pH 8.0	(34)
Calcitonin	1620	pH 7.4, 22°C	(35)
CspB-1	1620	10% CH_3CN, pH 4.0	(36)
Huntingtin	1620	pH 8.0, RT	(37)
PABPN1	1621	pH 7.4, 37°C	(38)
Synthetic VT peptide	1621	pH 2.2	(39)
PrP (91-231)	1622	pH 3.0, RT	(40)
$A\beta_{42}$	1622	pD 7.5, RT	(41)
$A\beta_{40}$	1623	pD 7.5, RT	(41)
β_2m (20-41)	1624	20% (v/v) TFE, pH 2.0, 25°C	(42)
Tau fragment (VQIVSK)	1624	pH 7.2, RT	(43)
TTR	1625	pH 4.4, 37°C	(44)
Histone	1625	pH 2.0, 37°C	(45)
BIF light chain	1625	pH 7.4, 37°C	(14)
NFGF-1	1625	15% (v/v) TFE	(17)
TGFB peptide	1625	pH 7.4	(46)
STVIIE	1625	pH 2.6, RT	(47)
SMA light chain	1627	pH 7.4, 32°C	(13)
LEN light chain	1627	pH 2.0, 37°C	(15)
Lactoferrin peptide (NAGDVAFV)	1627	pH 7.4, 37°C	(48)
PrP (23-144)	1628	pH 6.5, 25°C	(32)
Insulin (B-chain)	1628	pH 1.6, 37°C	(49)
Glucagon	1629	pH 2.5, 25°C	(50)
α-synuclein	1629	pH 7.5, RT	(51)
Pmel17	1629	pH 7.4	(52)
Insulin	1630	pH 1.6, 37°C	(49)
Lysozyme (Asp67His)	1630	pH 7.0, 62°C	(53)
α-lactalbumin	1631	pH 2.0, 37°C	(54)

* RT = room temperature; TFE = trifluoroethanol

(1) Fibrils formed *in vitro* from pure apomyoglobin (horse heart; pH 9, 60°C), insulin (bovine pancreas; pH 2) and lysozyme (hen egg; pH 2, 60°C) (results not shown) were examined by ATR-FTIR spectroscopy, according to the Methods described in this paper, and gave rise to spectra with amide I' absorbance maxima at frequencies comparable to those already published and cited above.

(2) Only a few of the precursor proteins shown above are associated with amyloidosis, others are either associated with different types of protein misfolding disorders or are not know to be associated with any disorder. In many cases above, the genuine amyloid-like characteristics of the fibrils have not been comprehensively investigated.

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