

Supplementary File S1

Table S.1: Summary of mutational studies using full-length synthetic hIAPP created with point mutations and their effects on amyloid formation, arranged with the most recent studies first.

Mutation Full length IAPP 1-37	Results	Citation
A25T	Faster amyloid formation	(1)
K1I	Slightly slower amyloid formation	(1)
H18R	Slower amyloid formation	(1)
S28P S29P	Abolishes amyloid formation	(2)
A25P S29P	Slower amyloid formation	(2)
A25P S28P	Abolishes amyloid formation	(2)
S29P	Slower amyloid formation	(2)
S28P	Abolishes amyloid formation	(2)
A25P	Slower amyloid formation	(2)
Des L1 2-37 hIAPP	No effect reported	(3)
L1CML (carboxymethyl)-L-lysine	Faster amyloid formation	(4)
N21G	Slower amyloid formation	(5)
N21n (D-aminoacid)	Faster amyloid formation	(5)
N21Aib (aminoisobutyric acid)	Slower amyloid formation	(5)
N21P	Faster amyloid formation	(5)
N21Dab (diaminobutyric acid)	Abolishes amyloid formation	(5)
N21D	Abolishes amyloid formation	(5)
N21L	Abolishes amyloid formation	(5)
N21F	Abolishes amyloid formation	(5)
N21A	Faster amyloid formation	(5)
N31K	Slower amyloid formation	(6)
S29P	Slower amyloid formation	(6)
N22K	Slower amyloid formation	(6)
H18P	Slower amyloid formation	(6)
H18RS20G	Slower amyloid formation	(7)
S29P	Slower amyloid formation	(7)
S20G	Faster amyloid formation	(7)
H18R	Slower amyloid formation	(7)
H18E	Slower amyloid formation	(8)
H18A	Slower amyloid formation	(8)
H18K	Slower amyloid formation	(8)
H18R	Slower amyloid formation	(8)
N35isoD	No effect reported	(9)
N35D	No effect reported	(9)
N31isoD	Slower amyloid formation	(9)
N31D	Slower amyloid formation	(9)
N22isoD	slight slower amyloid formation	(9)
N22D	Slightly slower amyloid formation	(9)
N21D	Abolishes amyloid formation	(9)
N21isoD	Abolishes amyloid formation	(9)
N14isoD	No effect reported	(9)
N14D	Faster amyloid formation	(9)
Unamidated C terminal hIAPP	Slower amyloid formation	(10)
H18Q unamidated C terminal hIAPP	Faster amyloid formation	(10)
H18Q	Moderately faster amyloid formation	(10)
H18L	Faster amyloid formation	(10)
F15TLe (Tert-leucine)	Slower amyloid formation	(11)
F15I	Slower amyloid formation	(11)
F15NLe (Norleucine)	Slower amyloid formation	(11)

F15L F23L Y37L (3XL)	Slower amyloid formation	(11)
F23L Y37L	Slower amyloid formation	(11)
F15L Y37L	Slower amyloid formation	(11)
F15L F23L	Slower amyloid formation	(11)
Y37L	Slower amyloid formation	(11)
F23L	Slower amyloid formation	(11)
F15L	Faster amyloid formation	(11)
S20K	Slower amyloid formation	(12)
S20G	Faster amyloid formation	(12)
S28G	Abolishes amyloid formation	(13)
I26D	Abolishes amyloid formation	(13)
L16Q	Abolishes amyloid formation	(13)
A13E	Abolishes amyloid formation	(13)
H18R	Slower amyloid formation	(14)
G24P	Abolishes amyloid formation	(15,16)
I26P	Abolishes amyloid formation	(15,16)
F15L/F23L/Y37 3XL	Slower amyloid formation	(17)
A25P/S28P/S29P (Pramlintide)	Abolishes amyloid formation	(18)

Table S.2: Summary of all mutational studies using synthetic hIAPP fragment 8-37 and their effect on amyloid formation. The table is ordered in the reverse chronological order of references showing the most recent studies first.

Mutation Fragment of human IAPP 8-37	Results	Citation
V17K	No effect reported	(19)
V17A	Faster amyloid formation	(19)
F15D	Faster amyloid formation	(19)
F15K	Slower amyloid formation	(19)
F15S	Faster amyloid formation	(19)
F15A	Faster amyloid formation	(19)
H18R/F23L/A25P/I26P	Abolished amyloid formation	(20)
H18R/S28P/S29P	Abolished amyloid formation	(20)
H18R/F23L	Slower amyloid formation	(20)
F23L	Slower amyloid formation	(20)
H18R	No effect reported	(20)
T36C	No change reported	(21)
T30C	Slower amyloid formation	(21)
A25C	Slower amyloid formation	(21)
V17C	Faster amyloid formation	(21)
A13C	Slower amyloid formation	(21)
N14L/L16N	Abolished amyloid formation	(21)
L12N/N14L	Abolished amyloid formation	(21)
N35L	Slower amyloid formation	(21)
N31L	Slower amyloid formation	(21)
N22L	No effect reported	(21)
N21S	Abolished amyloid formation	(21)
N21L	Abolished amyloid formation	(21)
N14S	Abolished amyloid formation	(21)
N14A	Abolished amyloid formation	(21)
N14L	Abolished amyloid formation	(21)
V17P/S19P/T30P (3XP)	Abolishes amyloid formation	(22)

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