

SEQUENCE LISTING

<110> Fuji Film Corporation

<120> Cyclic peptide, adsorptive material, labeled antibody,
antibody-drug conjugate, and a pharmaceutical preparation

<130> 17F01489

<150> JP 2016-194506

<151> 2016-09-30

<160> 21

<170> PatentIn version 3.5

<210> 1

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Partial peptide 1: A-Y-H-L-G-E-L-V-W

<400> 1

Ala Tyr His Leu Gly Glu Leu Val Trp

1

5

<210> 2

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Partial peptide 2: A-Y-H-R-G-E-L-V-W

<400> 2

Ala Tyr His Arg Gly Glu Leu Val Trp

1

5

<210> 3

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Cyclic peptide 1: D-(Lys(N3))-A-Y-H-R-G-E-L-V-W-(Bpg)-T-K-K

A triazole bond is formed between (Lys(N3)) and (Bpg).

(Lys(N3)): epsilon-azido-L-lysine residue

(Bpg): L-bishomopropargylglycine residue

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from epsilon-azido-L-lysine

Xaa12: induced from L-bishomopropargylglycine

<220>

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<222> (12)..(12)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from epsilon-azido-L-lysine

Xaa12: induced from L-bishomopropargylglycine

<400> 3

Asp	Xaa	Ala	Tyr	His	Arg	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5				10					15	

<210> 4

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Cyclic peptide 2: D-(Lys(N3))-A-Y-H-L-G-E-L-V-W-(Bpg)-T-K-K

A triazole bond is formed between (Lys(N3)) and (Bpg).

(Lys(N3)): epsilon-azido-L-lysine residue

(Bpg): L-bishomopropargylglycine residue

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from epsilon-azido-L-lysine

Xaa12: induced from L-bishomopropargylglycine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from epsilon-azido-L-lysine

Xaa12: induced from L-bishomopropargylglycine

<400> 4

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5				10					15	

<210> 5

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Cyclic peptide 3: D-(Bpg)-A-Y-H-L-G-E-L-V-W-(Lys(N3))-T-K-K

A triazole bond is formed between (Bpg) and (Lys(N3)).

(Bpg): L-bishomopropargylglycine residue

(Lys(N3)): epsilon-azido-L-lysine residue

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from L-bishomopropargylglycine

Xaa12: induced from epsilon-azido-L-lysine

<220>

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<222> (12)..(12)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from L-bishomopropargylglycine

Xaa12: induced from epsilon-azido-L-lysine

<400> 5

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5					10					15

<210> 6

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Cyclic peptide 4: D-(Hpg)-A-Y-H-L-G-E-L-V-W-(Ala(N3))-T-K-K

A triazole bond is formed between (Hpg) and (Ala(N3)).

(Hpg): L-homopropargylglycine residue

(Ala(N3)): beta-azido-L-alanine residue

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from L-homopropargylglycine

Xaa12: induced from beta-azido-L-alanine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from L-homopropargylglycine

Xaa12: induced from beta-azido-L-alanine

<400> 6

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5					10					15

<210> 7
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Cyclic peptide 5: K-K-K-D-(Hpg)-A-Y-H-L-G-E-L-V-W-(Ala(N3))-T

A triazole bond is formed between (Hpg) and (Ala(N3)).

(Hpg): L-homopropargylglycine residue

(Ala(N3)): beta-azido-L-alanine residue

<220>
 <221> MISC_FEATURE
 <222> (5)..(5)
 <223> Xaa5 and Xaa15 are bridged by a triazole bond.

Xaa5: induced from L-homopropargylglycine

Xaa15: induced from beta-azido-L-alanine

<220>
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 <222> (15)..(15)
 <223> Xaa5 and Xaa15 are bridged by a triazole bond.

Xaa5: induced from L-homopropargylglycine

Xaa15: induced from beta-azido-L-alanine

<400> 7

Lys	Lys	Lys	Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr
1				5					10					15	

<210> 8
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Cyclic peptide 6: D-(Abu(N3))-A-Y-H-R-G-E-L-V-W-(Pra)-T-K-K

A triazole bond is formed between (Abu(N3)) and (Pra).

(Abu(N3)) : gamma-azido-L-homoalanine residue

(Pra): L-propargylglycine residue

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from gamma-azido-L-homoalanine

Xaa12: induced from L-propargylglycine

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from gamma-azido-L-homoalanine

Xaa12: induced from L-propargylglycine

<400> 8

Asp	Xaa	Ala	Tyr	His	Arg	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5					10					15

<210> 9
 <211> 15
 <212> PRT
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<220>
 <223> Cyclic peptide 7: D-(Abu(N3))-A-Y-H-L-G-E-L-V-W-(Pra)-T-K-K

A triazole bond is formed between (Abu(N3)) and (Pra).

(Abu(N3)): gamma-azido-L-homoalanine residue

(Pra): L-propargylglycine residue

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from gamma-azido-L-homoalanine

Xaa12: induced from L-propargylglycine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from gamma-azido-L-homoalanine

Xaa12: induced from L-propargylglycine

<400> 9

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5					10					15

<210> 10

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Cyclic peptide 8: D-(Lys(N3))-A-Y-H-L-G-E-L-V-W-(Hpg)-T-K-K

A triazole bond is formed between (Lys(N3)) and (Hpg).

(Lys(N3)): epsilon-azido-L-lysine residue

(Hpg): L-homopropargylglycine residue

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from epsilon-azido-L-lysine

Xaa12: induced from L-homopropargylglycine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from epsilon-azido-L-lysine

Xaa12: induced from L-homopropargylglycine

<400> 10

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5					10					15

<210> 11

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Cyclic peptide 9: D-(Pra)-A-Y-H-L-G-E-L-V-W-(Lys(N3))-T-K-K

A triazol bond is formed between (Pra) and (Lys(N3)).

(Pra): L-propargylglycine residue

(Lys(N3)): epsilon-azido-L-lysine residue

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from L-propargylglycine

Xaa12: induced from epsilon-azido-L-lysine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from L-propargylglycine

Xaa12: induced from epsilon-azido-L-lysine

<400> 11

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5					10					15

<210> 12

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Cyclic peptide 10: D-(Lys(N3))-A-Y-H-L-G-E-L-V-W-(Pra)-T-K-K

A triazole bond is formed between (Lys(N3)) and (Pra).

(Lys(N3)): epsilon-azido-L-lysine residue

(Pra): L-propargylglycine residue

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from epsilon-azido-L-lysine

Xaa12: induced from L-propargylglycine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from epsilon-azido-L-lysine

Xaa12: induced from L-propargylglycine

<400> 12

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5				10					15	

<210> 13

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Cyclic peptide 11: D-(Abu(N3))-A-Y-H-L-G-E-L-V-W-(Hpg)-T-K-K

A triazole bond is formed between (Abu(N3)) and (Hpg).

(Abu(N3)): gamma-azido-L-homoalanine residue

(Hpg): L-homopropargylglycine residue

<220>

<221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from gamma-azido-L-homoalanine

Xaa12: induced from L-homopropargylglycine

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from gamma-azido-L-homoalanine

Xaa12: induced from L-homopropargylglycine

<400> 13

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5					10					15

<210> 14
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Cyclic peptide 12: D-(Hpg)-A-Y-H-L-G-E-L-V-W-(Abu(N3))-T-K-K

(Hpg): L-homopropargylglycine residue

(Abu(N3)): gamma-azido-L-homoalanine residue

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from L-homopropargylglycine

Xaa12: induced from gamma-azido-L-homoalanine

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from L-homopropargylglycine

Xaa12: induced from gamma-azido-L-homoalanine

<400> 14

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5					10					15

<210> 15

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Cyclic peptide 13: D-(Abu(N3))-A-Y-H-L-G-E-L-V-W-(Bpg)-T-K-K

(Abu(N3)): gamma-azido-L-homoalanine residue

(Bpg): L-bishomopropargylglycine residue

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from gamma-azido-L-homoalanine

Xaa12: induced from L-bishomopropargylglycine

<220>

<221> MISC_FEATURE

<222> (12)..(2)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from gamma-azido-L-homoalanine

Xaa12: induced from L-bishomopropargylglycine

<220>

<221> misc_feature

<222> (12)..(12)

<223> Xaa can be any naturally occurring amino acid

<400> 15

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5					10					15

<210> 16
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Cyclic peptide 14: D-(Bpg)-A-Y-H-L-G-E-L-V-W-(Nva(N3))-T-K-K

 (Bpg): L-bishomopropargylglycine residue
 (Nva(N3)): delta-azido-L-norvaline residue

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from gamma-azido-L-homoalanine

Xaa12: induced from delta-azido-L-norvaline

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from gamma-azido-L-homoalanine

Xaa12: induced from delta-azido-L-norvaline

<400> 16

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5					10					15

<210> 17
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Cyclic peptide 15: D-(Hpg)-A-Y-H-L-G-E-L-V-W-(Nva(N3))-T-K-K

 (Hpg): L-homopropargylglycine residue
 (Nva(N3)): delta-azido-L-norvaline residue

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from L-homopropargylglycine

Xaa12: induced from delta-azido-L-norvaline

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from L-homopropargylglycine

Xaa12: induced from delta-azido-L-norvaline

<400> 17

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5					10					15

<210> 18
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Cyclic peptide 16: D-(Nva(N3))-A-Y-H-L-G-E-L-V-W-(Bpg)-T-K-K

 (Nva(N3)): delta-azido-L-norvaline residue

 (Bpg): L-bishomopropargylglycine residue

<220>
 <221> MISC_FEATURE
 <222> (2)..(2)
 <223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from delta-azido-L-norvaline

Xaa12: induced from L-bishomopropargylglycine

<220>
 <221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa2 and Xaa12 are bridged by a triazole bond.

Xaa2: induced from delta-azido-L-norvaline

Xaa12: induced from L-bishomopropargylglycine

<400> 18

Asp	Xaa	Ala	Tyr	His	Leu	Gly	Glu	Leu	Val	Trp	Xaa	Thr	Lys	Lys
1				5					10					15

<210> 19

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Cyclic peptide 17: D-(Glu)-A-Y-H-R-G-E-L-V-W-(Lys)-T-K-K

An amide bond is formed between (Glu) and (Lys).

(Glu): L-glutamic acid residue

(Lys): L-lysine residue

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Glu2 and Lys12 are bridged by an amide bond.

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Glu2 and Lys12 are bridged by an amide bond.

<400> 19

Asp	Glu	Ala	Tyr	His	Arg	Gly	Glu	Leu	Val	Trp	Lys	Thr	Lys	Lys
1				5					10					15

<210> 20

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Cyclic peptide 18: D-(Glu)-A-Y-H-L-G-E-L-V-W-(Lys)-T-K-K

An amide bond is formed between (Glu) and (Lys).

(Glu): L-glutamic acid residue

(Lys): L-lysine residue

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Glu2 and Lys12 are bridged by an amide bond.

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Glu2 and Lys12 are bridged by an amide bond.

<400> 20

Asp	Glu	Ala	Tyr	His	Arg	Gly	Glu	Leu	Val	Trp	Lys	Thr	Lys	Lys
1				5					10				15	

<210> 21

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Cyclic peptide 19: D-(Cys)-A-Y-H-R-G-E-L-V-W-(Cys)-T-K-K

A disulfide bond is formed between (Cys) and (Cys).

(Cys): L-cysteine residue

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Cys2 and Cys 12 are bridged by a disulfide bond.

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Cys2 and Cys 12 are bridged by a disulfide bond.

<400> 21

Asp	Cys	Ala	Tyr	His	Arg	Gly	Glu	Leu	Val	Trp	Cys	Thr	Lys	Lys
1				5					10					15