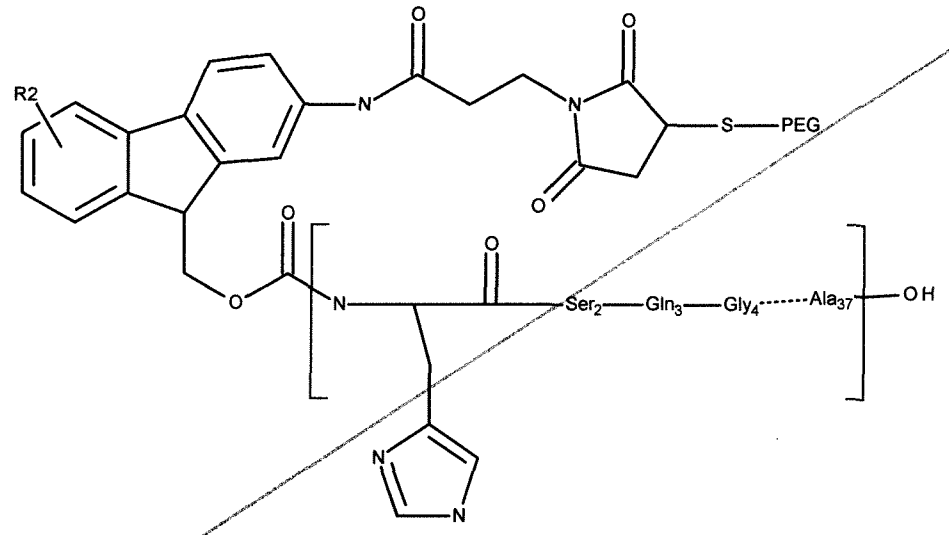
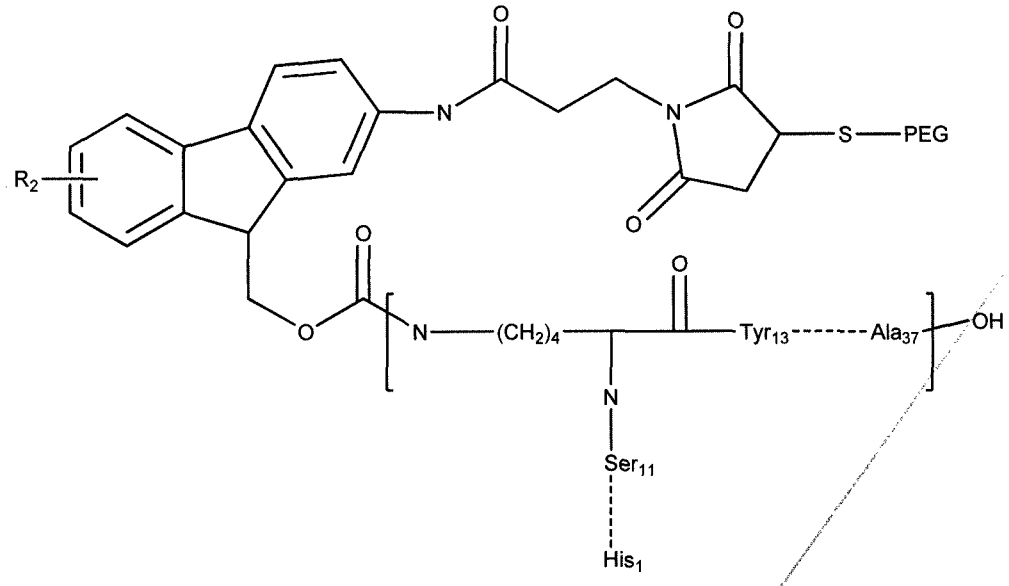
CLAIMS

~~1. A conjugate represented by the following structure:~~



oxyntomodulin

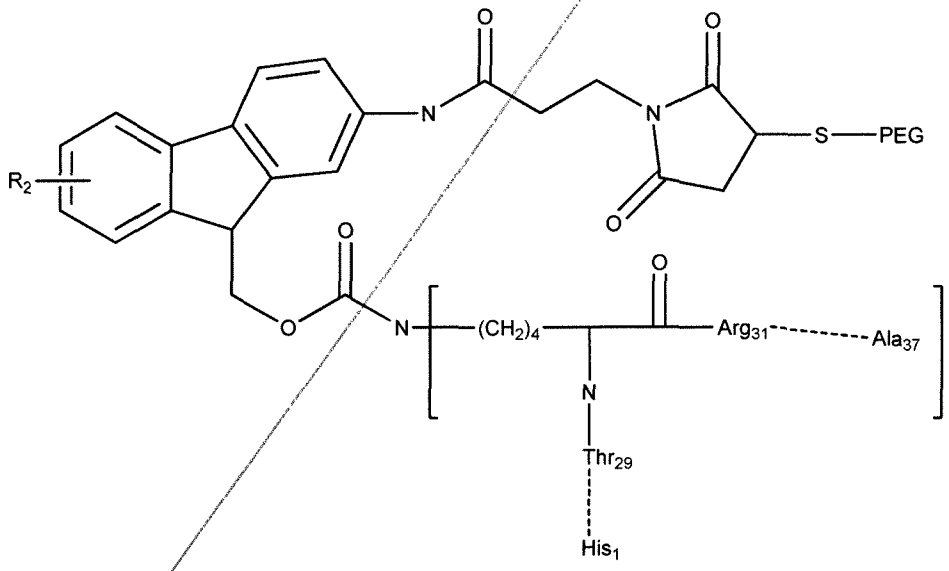
His [1] - Ser [2] - Gln [3] - Gly [4] - Thr [5] - Phe [6] - Thr [7] - Ser [8] - Asp [9] - Tyr [10] - Ser [11] - Lys [12] - Tyr [13] - Leu [14] - Asp [15] - Ser [16] - Arg [17] - Arg [18] - Ala [19] - Gln [20] - Asp [21] - Phe [22] - Val [23] - Gln [24] - Trp [25] - Leu [26] - Met [27] - Asn [28] - Thr [29] - Lys [30] - Arg [31] - Asn [32] - Arg [33] - Asn [34] - Asn [35] - Ile [36] - Ala [37] (SEQ ID NO:1)



oxyntomodulin

His [1] - Ser [2] - Gln [3] - Gly [4] - Thr [5]- Phe [6] - Thr [7] - Ser [8] - Asp [9] - Tyr [10] - Ser [11] - Lys [12] - Tyr [13] - Leu [14] - Asp [15] - Ser [16] - Arg [17] - Arg [18]- Ala [19] - Gln [20] - Asp [21] - Phe [22] - Val [23] - Gln [24] - Trp [25] - Leu [26] - Met [27] - Asn [28] - Thr [29] - Lys [30] - Arg [31]- Asn [32] - Arg [33] - Asn [34] - Asn [35] - Ile [36] - Ala [37] (SEQ ID NO: 1)

or



Oxyntomodulin

His [1] - Ser [2] - Gln [3] - Gly [4] - Thr [5]- Phe [6] - Thr [7] - Ser [8] - Asp [9] - Tyr [10] - Ser [11] - Lys [12] - Tyr [13] - Leu [14] - Asp [15]- Ser [16] - Arg [17] - Arg [18]- Ala [19] - Gln [20] - Asp [21] - Phe [22] - Val [23] - Gln [24] - Trp [25] - Leu [26] - Met [27] - Asn [28] - Thr [29]- Lys [30] - Arg [31]- Asn [32] - Arg [33] - Asn [34] - Asn [35] - Ile [36] - Ala [37] (SEQ ID NO: 1)

~~wherein R_2 is H or SO_3H.~~

~~2. The conjugate according to claim 1, wherein the PEG is a PEG 30.~~

~~3. The conjugate according to claim 1, wherein said R_2 is at position 2 of the fluorene ring.~~

~~4. A pharmaceutical composition comprising said conjugate of claim 1 or 2, and a pharmaceutically acceptable carrier.~~

~~5. A method for extending the biological half-life of oxyntomodulin, said method comprising administering a pharmaceutical composition of claim 4.~~

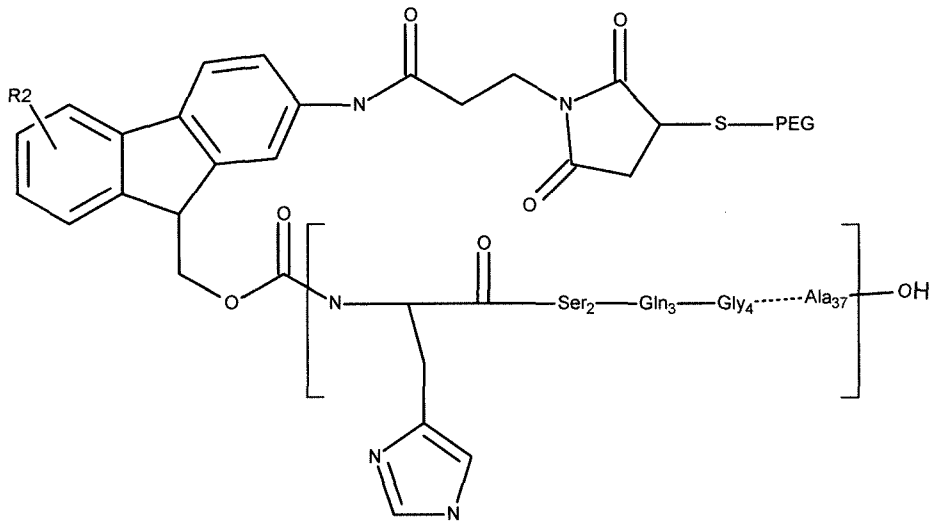
~~6. Use of a conjugate according to any one of claim 1 or claim 2, or use of pharmaceutical composition according to claim 4 in the preparation of a medicament for extending the biological half-life of oxyntomodulin.~~

~~7. A method of reducing the dosing frequency of oxyntomodulin, said method comprising administering a pharmaceutical composition of claim 4.~~

~~8. Use of a conjugate according to any one of claim 1 or claim 2, or use of pharmaceutical composition according to claim 4 in the preparation of a medicament for reducing the dosing frequency of oxyntomodulin.~~

~~9. Use of a conjugate according to any one of claim 1 or claim 2, or use of a composition according to claim 4, in the manufacture of a medicament for treating obesity.~~

~~10.~~1. A process for preparing a conjugate ~~of claim 1~~, represented by the following structure:

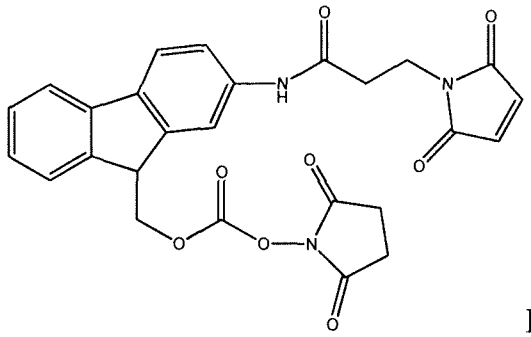


oxyntomodulin

His [1] - Ser [2] - Gln [3] - Gly [4] - Thr [5]- Phe [6] - Thr [7] - Ser [8] - Asp [9] - Tyr [10] - Ser [11] - Lys [12] - Tyr [13] - Leu [14] - Asp [15] - Ser [16] - Arg [17] - Arg [18]- Ala [19] - Gln [20] - Asp [21] - Phe [22] - Val [23] - Gln [24] - Trp [25] - Leu [26] - Met [27] - Asn [28] - Thr [29] - Lys [30] - Arg [31]- Asn [32] - Arg [33] - Asn [34] - Asn [35] - Ile [36] - Ala [37] (SEQ ID NO: 1)

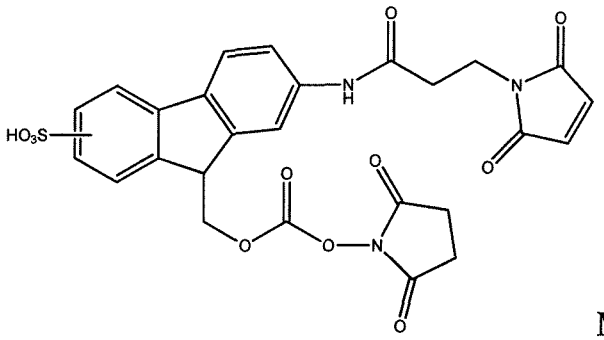
wherein said oxyntomodulin (OXM; of SEQ ID NO: 1) is linked *via* the terminal amino group of said oxyntomodulin and R_2 is hydrogen or SO_3H, representing PEG-Fmoc-OXM (N-terminus) and PEG-FMS-OXM (N-terminus), respectively; and

said process comprising reacting MAL-FMS-NHS or MAL-Fmoc-NHS:



MAL-Fmoc-NHS

or



MAL-FMS-NHS

with

a resin-bound oxyntomodulin of SEQ ID NO: 1, wherein the amino side chains of Lys^{12} and Lys^{30} of said resin-bound oxyntomodulin are each protected by a protecting group,

to obtain a resin-bound MAL-Fmoc-protected OXM (N-terminus) or a resin-bound MAL-FMS-protected OXM (N-terminus), respectively, wherein the amino side chains of said Lys^{12} and Lys^{30} are each protected by a protecting group,

followed by:

(a) reaction of the resin-bound MAL-Fmoc-protected OXM (N-terminus) or the resin-bound MAL-FMS-protected OXM (N-terminus) with sulfhydryl PEG polymer (PEG-SH) and subsequent removal of said protecting groups and said resin; or

(b) removal of the resin and protecting groups to provide a MAL-Fmoc-OXM (N-terminus) and a MAL-FMS-OXM (N-terminus), respectively, and subsequent reaction of the MAL-Fmoc-OXM or the MAL-FMS-OXM with sulfhydryl PEG polymer (PEG-SH),

to obtain PEG-Fmoc-OXM (N-terminus) or PEG-FMS-OXM (N-terminus), respectively.

~~11.~~2. The process of claim ~~10~~ 1, wherein said PEG is represented PEG 30.

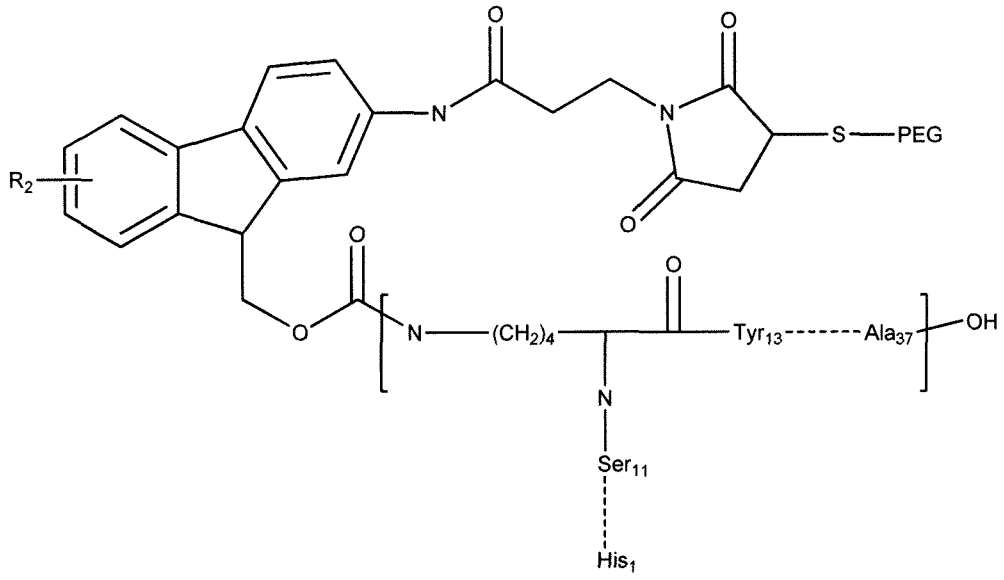
~~12.~~3. The process of claim ~~10~~ 1, wherein said R_2, or SO_3H is at position 2 of the fluorene ring.

~~13.~~4. The process of claim ~~10~~ 1, wherein said protecting groups of said amino groups of said lysine^{12} and lysine^{30} of MAL-Fmoc-protected OXM (N-terminus) and said MAL-FMS-protected OXM (N-terminus) are removed to obtain MAL-Fmoc-OXM (N-terminus) and MAL-FMS-OXM (N-terminus), respectively, and said MAL-Fmoc-OXM (N-terminus) and MAL-FMS-OXM (N-terminus) are further purified.

~~14.~~5. The process of claim ~~10~~ 1, wherein said protecting group of said side chain of said Lys^{12} and Lys^{30} is ivDde (1-[(4,4-dimethyl-2,6-dioxocyclohex-1-ylidine)ethyl]).

~~15.~~6. The process of claim ~~10~~ 1, wherein said protecting group is removed under basic conditions.

~~16.~~7. A process for preparing a conjugate ~~of claim 1~~ represented by the following structure:

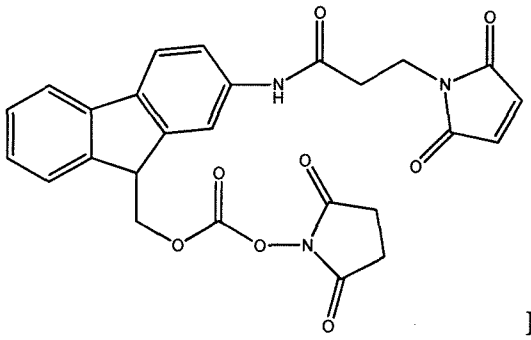


oxyntomodulin

His [1] - Ser [2] - Gln [3] - Gly [4] - Thr [5]- Phe [6] - Thr [7] - Ser [8] - Asp [9] - Tyr [10] - Ser [11] - Lys [12] - Tyr [13] - Leu [14] - Asp [15] - Ser [16] - Arg [17] - Arg [18]- Ala [19] - Gln [20] - Asp [21] - Phe [22] - Val [23] - Gln [24] - Trp [25] - Leu [26] - Met [27] - Asn [28] - Thr [29] - Lys [30] - Arg [31]- Asn [32] - Arg [33] - Asn [34] - Asn [35] - Ile [36] - Ala [37] (SEQ ID NO: 1)

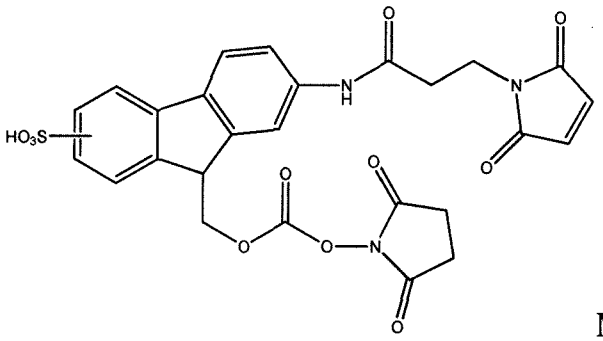
wherein said oxyntomodulin (OXM; of SEQ ID NO: 1) is linked *via* the amino side chain of said Lys^{12} of said oxyntomodulin and R_2 is hydrogen or SO_3H, representing PEG-Fmoc-OXM (Lys^{12}) and PEG-FMS-OXM (Lys^{12}), respectively; and

said process comprising reacting MAL-FMS-NHS or MAL-Fmoc-NHS:



MAL-Fmoc-NHS

or



MAL-FMS-NHS

with

a resin-bound oxyntomodulin of SEQ ID NO: 1, wherein the amino side chain of Lys^{30} and the amino terminus of His^1 of said oxyntomodulin are each protected by a protecting group;

to obtain a resin-bound MAL-Fmoc-protected OXM (Lys^{12}) or a resin-bound MAL-FMS-protected OXM (Lys^{12}), respectively, wherein the amino side chain of Lys^{30} and the amino terminus of His^1 of said oxyntomodulin are each protected by said protecting group;

followed by:

(a) reaction of the resin-bound MAL-Fmoc-protected OXM (Lys^{12}) or the resin-bound MAL-FMS-protected OXM (Lys^{12}) with sulfhydryl PEG polymer (PEG-SH) and subsequent removal of said protecting groups and said resin; or

(b) removal of the resin and protecting groups to provide a MAL-Fmoc-OXM (Lys^{12}) and a MAL-FMS-OXM (Lys^{12}), respectively, and subsequent reaction of the MAL-Fmoc-OXM (Lys^{12}) or the MAL-FMS-OXM (Lys^{12}) with sulfhydryl PEG polymer (PEG-SH),

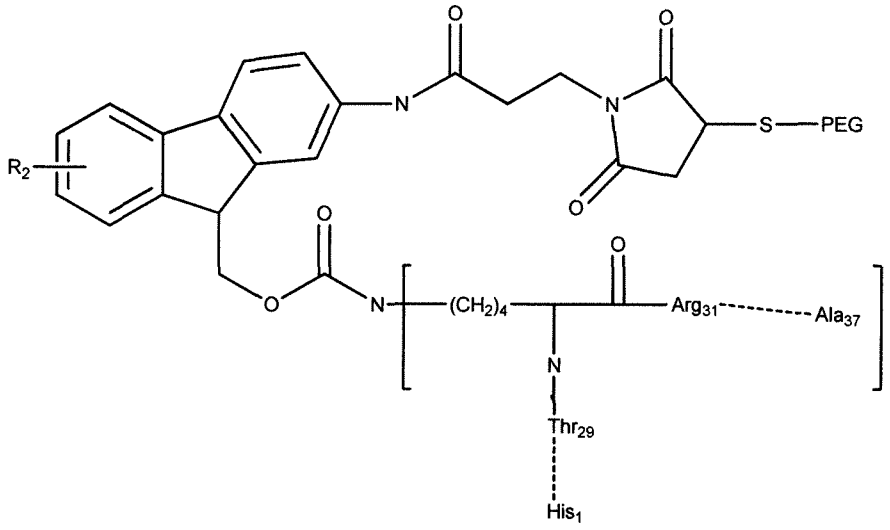
to obtain PEG-Fmoc-OXM (Lys^{12}) or PEG-FMS-OXM (Lys^{12}), respectively.

~~17.~~8. The process of claim ~~16~~ 7, wherein said PEG is PEG 30.

~~18.~~9. The process of claim ~~16~~ 7, wherein said R_2, or SO_3H is at position 2 of the fluorene ring.

~~19.~~10. The process of claim ~~16~~ 7, wherein said protecting groups of said amino groups of said $lysine^{30}$ and $histidine^{1}$ of MAL-Fmoc-protected OXM (Lys^{12}) and said MAL-FMS-protected OXM (Lys^{12}) are removed to obtain MAL-Fmoc-OXM (Lys^{12}) and MAL-FMS-OXM (Lys^{12}), respectively, and said MAL-Fmoc-OXM (Lys^{12}) and MAL-FMS-OXM (Lys^{12}) are further purified.

~~20.~~11. A process for preparing a conjugate ~~of claim 1~~ represented by the following structure:

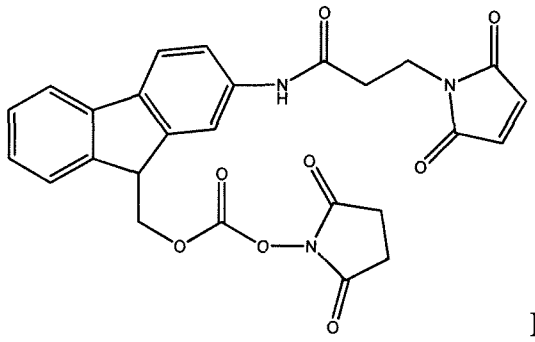


Oxyntomodulin

His [1] - Ser [2] - Gln [3] - Gly [4] - Thr [5]- Phe [6] - Thr [7] - Ser [8] - Asp [9] - Tyr [10] - Ser [11] - Lys [12] - Tyr [13] - Leu [14] - Asp [15]- Ser [16] - Arg [17] - Arg [18]- Ala [19] - Gln [20] - Asp [21] - Phe [22] - Val [23] - Gln [24] - Trp [25] - Leu [26] - Met [27] - Asn [28] - Thr [29]- Lys [30] - Arg [31]- Asn [32] - Arg [33] - Asn [34] - Asn [35] - Ile [36] - Ala [37] (SEQ ID NO: 1)

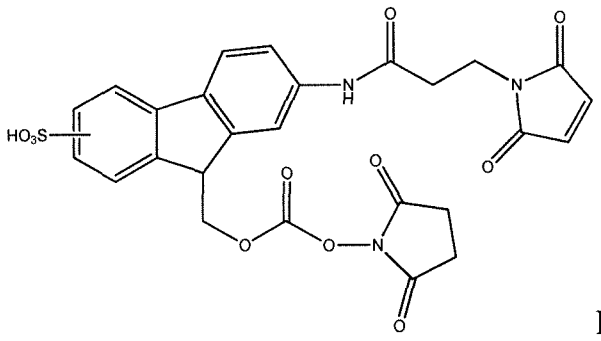
wherein said oxyntomodulin (OXM; of SEQ ID NO: 1) is linked *via* the amino side chain of said Lys^{30} of oxyntomodulin, R_2 is hydrogen or SO_3H, representing PEG-Fmoc-OXM (Lys^{30}) and PEG-FMS-OXM (Lys^{30}), respectively; and

said process comprising reacting MAL-FMS-NHS or MAL-Fmoc-NHS :



MAL-Fmoc-NHS

or



MAL-FMS-NHS

with

a resin-bound oxyntomodulin of SEQ ID NO: 1, wherein the amino side chain of Lys^{12} and the amino terminus of His^{1} of said oxyntomodulin are each protected by a protecting group;

to obtain a resin-bound MAL-Fmoc-protected OXM (Lys^{30}) or MAL-FMS-protected OXM (Lys^{30}), wherein the amino side chain of Lys^{12} and the amino terminus of His^{1} of said oxyntomodulin are each protected by a protecting group,

followed by:

(a) reaction of the resin-bound MAL-Fmoc-protected OXM (Lys^{30}) or the resin-bound MAL-FMS-protected OXM (Lys^{30}) with sulfhydryl PEG polymer (PEG-SH) and subsequent removal of said protecting groups and said resin; or

(b) removal of the resin and protecting groups to provide a MAL-Fmoc-OXM (Lys^{30}) and a MAL-FMS-OXM (Lys^{30}), respectively, and subsequent reaction of the MAL-Fmoc-OXM or the MAL-FMS-OXM with sulfhydryl PEG polymer (PEG-SH),

to yield PEG-Fmoc-OXM (Lys^{30}) or PEG-FMS-OXM (Lys^{30}).

~~21.~~12. The process of claim ~~20~~ 11, wherein said PEG is PEG30.

~~22.~~13. The process of claim ~~20~~ 11, wherein said R_2, or SO_3H is at position 2 of the fluorene ring.

~~23.~~14. The process of claim ~~20~~ 11, wherein said protecting groups of said amino groups of said lysine[12] and histidine[1] of MAL-Fmoc-protected OXM (Lys^{30}) and said MAL-FMS-protected OXM (Lys^{30}) are removed to obtain MAL-Fmoc-OXM (Lys^{30}) and MAL-FMS-OXM (Lys^{30}), respectively, and said MAL-Fmoc-OXM (Lys^{30}) and MAL-FMS-OXM (Lys^{30}) are further purified.