

CLAIMS:

1. A modified membrane type serine protease 1 (MTSP-1) polypeptide, comprising one or more amino acid modifications selected from among I41S, Q38H, D60bT, F60eS or R, Y60gW, ins97aV, D96K, F97G, G151H or N, and Q192T, whereby the modified MTSP-1 polypeptide has increased activity/specificity for a complement protein compared to the unmodified active form of the MTSP-1 polypeptide, wherein:

the amino acid modifications are selected from among replacements, insertions and/or deletions in the unmodified MTSP-1 polypeptide;

the complement protein is C3;

the modified MTSP-1 polypeptide cleaves a target site in C3 that inactivates C3 to thereby inhibit or reduce complement activation;

residues are numbered by chymotrypsin numbering;

corresponding residues are determined by alignment and chymotrypsin numbering;

and

the unmodified MTSP-1 polypeptide comprises the sequence of amino acids set forth in any of SEQ ID NOs: 1-4 or a catalytically active fragment or form thereof that includes the amino acid modification position(s).

2. The modified MTSP-1 polypeptide of claim 1, wherein the target site in C3 comprises residues 737-744 of SEQ ID NO:9.

3. The modified MTSP-1 polypeptide of claim 2, wherein the cleavage is between residues 740 and 741 of SEQ ID NO:9, whereby cleavage occurs at

Q H A R ↓ A S H L.

4. The modified MTSP-1 polypeptide of any of claims 1-3, wherein the unmodified MTSP-1 polypeptide consists of the sequence of amino acids set forth in any of SEQ ID NOs:1-4.

5. The modified MTSP-1 polypeptide of any of claims 1-3, wherein the unmodified MTSP-1 polypeptide consists of the sequence of amino acids set forth in SEQ ID NO:4.

6. The modified MTSP-1 polypeptide of any of claims 1-5, wherein the modified MTSP-1 polypeptide contains up to 15 amino acid replacements, insertions or

deletions, compared to the unmodified MTSP-1 polypeptide of any of SEQ ID NOs: 1-4 or a catalytically active portion thereof.

7. The modified MTSP-1 polypeptide of any of claims 1-6, comprising a modification corresponding to Q38H.

8. The modified MTSP-1 polypeptide of claim 7, further comprising a modification corresponding to I41S.

9. The modified MTSP-1 polypeptide of claim 8, further comprising one or more modifications corresponding to D60bT, F60eS, Y60gW, F97G, ins97aV, D96K, T98P, F99L, G151H, Q175L, or Q192D.

10. The modified MTSP-1 polypeptide of any of claims 1-9, comprising modifications corresponding to I41E/F99L/C122S/G151N/Q192T, or I41D/C122S/G151N/Q192T, or I41S/F99L/C122S/G151N/Q192V, or I41R/F97T/Ins97aE/T98G/F99L/C122S/G151N/Q175L/Q192E, or I41R/F97T/Ins97aE/T98G/F99L/C122S/G151N/Q175L/Q192D, or I41D/Y59F/D96E/F99L/C122S/G151N/Q192T, or I41D/Y59F/C122S/G151N/Q192T, or comprising the same modifications except wherein C122S is C122C.

11. The modified MTSP-1 polypeptide of any of claims 1-9, comprising modifications corresponding to any of:

Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D, or

I41R/F97T/Ins97aE/T98G/F99L/C122S/G151N/Q175L/Q192E, or

Q38H/I41A/D60bV/F60eR/Y60gW/F97T/ins97aE/T98G/F99L/C122S/G151N/Q175L/Q192D, or

Q38H/I41A/D60bT/F60eK/Y60gW/F97T/ins97aE/T98G/F99L/C122S/G151N/Q175L/Q192D, or

Q38H/I41S/D60bT/F60eS/Y60gW/F97D/ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192E, or

Q38H/I41S/D60bT/F60eS/Y60gW/F97D/ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D, or

Q38H/I41A/D60bT/F60eK/Y60gW/F97T/ins97aE/T98G/F99L/C122S/G151H/Q175L/Q192
D, or

Q38H/I41S/D60bT/F60eS/Y60gW/F97D/ins97aV/T98P/F99L/C122S/G151N/Q175L/Q192
D, or

Q38H/I41A/D60bV/F60eR/Y60gW/F97T/ins97aE/T98G/F99L/C122S/G151H/Q175L/Q192
D, or

Q38H/I41A/D60bV/F60eR/Y60gW/D96I/F97Y/ins97aN/T98G/F99L/C122S/G151N/Q175L/
Q192D, or

Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97D/ins97aA/T98P/F99L/C122S/G151H/Q175L/
Q192D, or

Q38H/I41A/D60bV/F60eR/Y60gW/D96P/F97W/ins97aN/T98G/F99L/C122S/G151N/Q175
L/Q192E, or

Q38H/I41A/D60bV/F60eR/Y60gW/D96I/F97N/T98G/F99L/C122S/G151N/Q175L/Q192D,
or

Q38H/I41S/D60bT/F60eS/Y60gW/D96Y/F97E/ins97aV/T98G/F99L/C122S/G151H/Q175L/
Q192D, or

Q38H/I41S/D60bT/F60eS/Y60gW/D96L/F97D/ins97aG/T98N/F99L/C122S/G151H/Q175L/
Q192E, or

Q38H/I41S/D60bT/F60eS/Y60gW/D96V/F97G/ins97aV/T98P/F99L/C122S/G151H/Q175L/
Q192D, or

Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97D/ins97aA/T98P/F99L/C122S/G151N/Q175L/
Q192D, or

Q38H/I41S/D60bT/F60eS/Y60gW/F97G/ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192
D, or

Q38H/I41S/D60bT/F60eS/Y60gW/D96K/ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192
D, or

Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/ins97aV/T98P/F99L/C122S/G151H/Q175L,
or

I41E/F99L/C122S/G151N/Q192T, or I41D/C122S/G151N/Q192T, or

I41S/F99L/C122S/G151N/Q192V, or

I41D/Y59F/D96E/F99L/C122S/G151N/Q192T, or I41D/Y59F/C122S/G151N/Q192T, or

I41S/D60bT/F60eS/Y60gW/D96K/F97G/ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D, or

Q38H/D60bT/F60eS/Y60gW/D96K/F97G/ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D, or

Q38H/I41S/F60eS/Y60gW/D96K/F97G/ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D, or

Q38H/I41S/D60bT/Y60gW/D96K/F97G/ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D, or

Q38H/I41S/D60bT/F60eS/D96K/F97G/ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D, or

Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D, or

Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/ins97aV/F99L/C122S/G151H/Q175L/Q192D, or

Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/ins97aV/T98P/C122S/G151H/Q175L/Q192D, or

Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/ins97aV/T98P/F99L/C122S/Q175L/Q192D, or

Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/ins97aV/T98P/F99L/C122S/G151H/Q192D, or

Q38H/I41S/D96K/F97G/ins97aV/T98P/F99L/C122S/Q192D, or

I41S/D96K/F97G/ins97aV/T98P/F99L/C122S/Q175L/Q192D, or

I41S/D96K/F97G/ins97aV/T98P/F99L/C122S/Q192D, or

Q38H/I41S/D96K/F97G/ins97aV/T98P/F99L/C122S/Q175L/Q192D, or

Q38H/I41S/D60bY/D96K/F97G/ins97aV/T98P/F99L/C122S/Q192D/D217V, or

I41S/D96K/F97G/ins97aV/T98P/F99L/C122S/Q192G/D217V, or

I41S/D60bY/D96K/F97G/ins97aV/T98P/F99L/C122S/Q192D/D217V, or
I41S/D96M/F97G/ins97aV/T98P/F99L/C122S/Q192G/D217V, or
I41S/D96K/F97G/ins97aV/T98P/F99L/C122S/Q192V/D217I, or
I41S/D96K/F97G/ins97aV/T98P/F99L/C122S/Q192H, or
I41S/D96K/F97G/ins97aV/T98P/F99L/C122S/Q192N/D217V, or
I41S/D60bY/D96K/F97G/ins97aV/T98P/F99L/C122S/Q175L/Q192D, or
Q38H/I41S/D96K/F97G/ins97aV/T98P/F99L/C122S/Q192G/D217V, or
I41S/D96K/F97G/ins97aV/T98P/F99L/C122S/Q175L/Q192V, or
I41S/P49S/D96K/F97G/ins97aV/T98P/F99L/C122S/Q192G/D217V, or
I41S/D96K/F97G/ins97aV/T98P/F99L/C122S/Q175L/Q192N/D217V, or
I41T/F97W/F99L/C122S/G151N/Q175M/Q192G/D217L, or
I41G/F97L/F99L/C122S/Q175A/Q192T/D217V, or
I41G/F97V/F99L/C122S/G151Q/Q175M/Q192A/D217L, or
I41G/F97I/F99L/C122S/G151L/Q175M/Q192S/D217V, or
I41G/F97S/F99L/C122S/G151N/Q175L/Q192G/D217I, or
I41T/F97L/F99L/C122S/G151N/Q175S/Q192S/D217W, or
I41D/F97T/F99M/C122S/Q192V/D217M, or the same modifications except C122S is not modified and is C122C.

12. The modified MTSP-1 polypeptide of any of claims 1-9, comprising modifications selected from among combinations that include one or more of modifications Q38H, I41S, D60bT, F60eS, Y60gW, D96K, F97G, Ins97aV, and G151H as follows:

G151H, Ins97aV, Ins97aV/G151H, F97G, F97G/G151H, F97G/Ins97aV,
F97G/Ins97aV/G151H, D96K, D96K/G151H, D96K/Ins97aV, D96K/Ins97aV/G151H,
D96K/F97G, D96K/F97G/G151H, D96K/F97G/Ins97aV, D96K/F97G/Ins97aV/G151H,
Y60gW, Y60gW/G151H, Y60gW/Ins97aV, Y60gW/Ins97aV/G151H, Y60gW/F97G,
Y60gW/F97G/G151H, Y60gW/F97G/Ins97aV, Y60gW/F97G/Ins97aV/G151H,
Y60gW/D96K, Y60gW/D96K/G151H, Y60gW/D96K/Ins97aV,
Y60gW/D96K/Ins97aV/G151H, Y60gW/D96K/F97G, Y60gW/D96K/F97G/G151H,

Y60gW/D96K/F97G/Ins97aV, Y60gW/D96K/F97G/Ins97aV/G151H, F60eS, F60eS/G151H,
F60eS/Ins97aV, F60eS/Ins97aV/G151H, F60eS/F97G, F60eS/F97G/G151H,
F60eS/F97G/Ins97aV, F60eS/F97G/Ins97aV/G151H, F60eS/D96K, F60eS/D96K/G151H,
F60eS/D96K/Ins97aV, F60eS/D96K/Ins97aV/G151H, F60eS/D96K/F97G,
F60eS/D96K/F97G/G151H, F60eS/D96K/F97G/Ins97aV,
F60eS/D96K/F97G/Ins97aV/G151H, F60eS/Y60gW, F60eS/Y60gW/G151H,
F60eS/Y60gW/Ins97aV, F60eS/Y60gW/Ins97aV/G151H, F60eS/Y60gW/F97G,
F60eS/Y60gW/F97G/G151H, F60eS/Y60gW/F97G/Ins97aV,
F60eS/Y60gW/F97G/Ins97aV/G151H, F60eS/Y60gW/D96K, F60eS/Y60gW/D96K/G151H,
F60eS/Y60gW/D96K/Ins97aV, F60eS/Y60gW/D96K/Ins97aV/G151H,
F60eS/Y60gW/D96K/F97G, F60eS/Y60gW/D96K/F97G/G151H,
F60eS/Y60gW/D96K/F97G/Ins97aV, F60eS/Y60gW/D96K/F97G/Ins97aV/G151H, D60bT,
D60bT/G151H, D60bT/Ins97aV, D60bT/Ins97aV/G151H, D60bT/F97G,
D60bT/F97G/G151H, D60bT/F97G/Ins97aV, D60bT/F97G/Ins97aV/G151H, D60bT/D96K,
D60bT/D96K/G151H, D60bT/D96K/Ins97aV, D60bT/D96K/Ins97aV/G151H,
D60bT/D96K/F97G, D60bT/D96K/F97G/G151H, D60bT/D96K/F97G/Ins97aV,
D60bT/D96K/F97G/Ins97aV/G151H, D60bT/Y60gW, D60bT/Y60gW/G151H,
D60bT/Y60gW/Ins97aV, D60bT/Y60gW/Ins97aV/G151H, D60bT/Y60gW/F97G,
D60bT/Y60gW/F97G/G151H, D60bT/Y60gW/F97G/Ins97aV,
D60bT/Y60gW/F97G/Ins97aV/G151H, D60bT/Y60gW/D96K,
D60bT/Y60gW/D96K/G151H, D60bT/Y60gW/D96K/Ins97aV,
D60bT/Y60gW/D96K/Ins97aV/G151H, D60bT/Y60gW/D96K/F97G,
D60bT/Y60gW/D96K/F97G/G151H, D60bT/Y60gW/D96K/F97G/Ins97aV,
D60bT/Y60gW/D96K/F97G/Ins97aV/G151H, D60bT/F60eS, D60bT/F60eS/G151H,
D60bT/F60eS/Ins97aV, D60bT/F60eS/Ins97aV/G151H, D60bT/F60eS/F97G,
D60bT/F60eS/F97G/G151H, D60bT/F60eS/F97G/Ins97aV,
D60bT/F60eS/F97G/Ins97aV/G151H, D60bT/F60eS/D96K, D60bT/F60eS/D96K/G151H,
D60bT/F60eS/D96K/Ins97aV, D60bT/F60eS/D96K/Ins97aV/G151H,
D60bT/F60eS/D96K/F97G, D60bT/F60eS/D96K/F97G/G151H,
D60bT/F60eS/D96K/F97G/Ins97aV, D60bT/F60eS/D96K/F97G/Ins97aV/G151H,
D60bT/F60eS/Y60gW, D60bT/F60eS/Y60gW/G151H, D60bT/F60eS/Y60gW/Ins97aV,
D60bT/F60eS/Y60gW/Ins97aV/G151H, D60bT/F60eS/Y60gW/F97G,
D60bT/F60eS/Y60gW/F97G/G151H, D60bT/F60eS/Y60gW/F97G/Ins97aV,
D60bT/F60eS/Y60gW/F97G/Ins97aV/G151H, D60bT/F60eS/Y60gW/D96K,

D60bT/F60eS/Y60gW/D96K/G151H, D60bT/F60eS/Y60gW/D96K/Ins97aV,
D60bT/F60eS/Y60gW/D96K/Ins97aV/G151H, D60bT/F60eS/Y60gW/D96K/F97G,
D60bT/F60eS/Y60gW/D96K/F97G/G151H, D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV,
D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV/G151H, I41S, I41S/G151H, I41S/Ins97aV,
I41S/Ins97aV/G151H, I41S/F97G, I41S/F97G/G151H, I41S/F97G/Ins97aV,
I41S/F97G/Ins97aV/G151H, I41S/D96K, I41S/D96K/G151H, I41S/D96K/Ins97aV,
I41S/D96K/Ins97aV/G151H, I41S/D96K/F97G, I41S/D96K/F97G/G151H,
I41S/D96K/F97G/Ins97aV, I41S/D96K/F97G/Ins97aV/G151H, I41S/Y60gW,
I41S/Y60gW/G151H, I41S/Y60gW/Ins97aV, I41S/Y60gW/Ins97aV/G151H,
I41S/Y60gW/F97G, I41S/Y60gW/F97G/G151H, I41S/Y60gW/F97G/Ins97aV,
I41S/Y60gW/F97G/Ins97aV/G151H, I41S/Y60gW/D96K, I41S/Y60gW/D96K/G151H,
I41S/Y60gW/D96K/Ins97aV, I41S/Y60gW/D96K/Ins97aV/G151H,
I41S/Y60gW/D96K/F97G, I41S/Y60gW/D96K/F97G/G151H,
I41S/Y60gW/D96K/F97G/Ins97aV, I41S/Y60gW/D96K/F97G/Ins97aV/G151H,
I41S/F60eS, I41S/F60eS/G151H, I41S/F60eS/Ins97aV, I41S/F60eS/Ins97aV/G151H,
I41S/F60eS/F97G, I41S/F60eS/F97G/G151H, I41S/F60eS/F97G/Ins97aV,
I41S/F60eS/F97G/Ins97aV/G151H, I41S/F60eS/D96K, I41S/F60eS/D96K/G151H,
I41S/F60eS/D96K/Ins97aV, I41S/F60eS/D96K/Ins97aV/G151H, I41S/F60eS/D96K/F97G,
I41S/F60eS/D96K/F97G/G151H, I41S/F60eS/D96K/F97G/Ins97aV,
I41S/F60eS/D96K/F97G/Ins97aV/G151H, I41S/F60eS/Y60gW,
I41S/F60eS/Y60gW/G151H, I41S/F60eS/Y60gW/Ins97aV,
I41S/F60eS/Y60gW/Ins97aV/G151H, I41S/F60eS/Y60gW/F97G,
I41S/F60eS/Y60gW/F97G/G151H, I41S/F60eS/Y60gW/F97G/Ins97aV,
I41S/F60eS/Y60gW/F97G/Ins97aV/G151H, I41S/F60eS/Y60gW/D96K,
I41S/F60eS/Y60gW/D96K/G151H, I41S/F60eS/Y60gW/D96K/Ins97aV,
I41S/F60eS/Y60gW/D96K/Ins97aV/G151H, I41S/F60eS/Y60gW/D96K/F97G,
I41S/F60eS/Y60gW/D96K/F97G/G151H, I41S/F60eS/Y60gW/D96K/F97G/Ins97aV,
I41S/F60eS/Y60gW/D96K/F97G/Ins97aV/G151H, I41S/D60bT, I41S/D60bT/G151H,
I41S/D60bT/Ins97aV, I41S/D60bT/Ins97aV/G151H, I41S/D60bT/F97G,
I41S/D60bT/F97G/G151H, I41S/D60bT/F97G/Ins97aV,
I41S/D60bT/F97G/Ins97aV/G151H, I41S/D60bT/D96K, I41S/D60bT/D96K/G151H,
I41S/D60bT/D96K/Ins97aV, I41S/D60bT/D96K/Ins97aV/G151H, I41S/D60bT/D96K/F97G,
I41S/D60bT/D96K/F97G/G151H, I41S/D60bT/D96K/F97G/Ins97aV,
I41S/D60bT/D96K/F97G/Ins97aV/G151H, I41S/D60bT/Y60gW,

I41S/D60bT/Y60gW/G151H, I41S/D60bT/Y60gW/Ins97aV,
I41S/D60bT/Y60gW/Ins97aV/G151H, I41S/D60bT/Y60gW/F97G,
I41S/D60bT/Y60gW/F97G/G151H, I41S/D60bT/Y60gW/F97G/Ins97aV,
I41S/D60bT/Y60gW/F97G/Ins97aV/G151H, I41S/D60bT/Y60gW/D96K,
I41S/D60bT/Y60gW/D96K/G151H, I41S/D60bT/Y60gW/D96K/Ins97aV,
I41S/D60bT/Y60gW/D96K/Ins97aV/G151H, I41S/D60bT/Y60gW/D96K/F97G,
I41S/D60bT/Y60gW/D96K/F97G/G151H, I41S/D60bT/Y60gW/D96K/F97G/Ins97aV,
I41S/D60bT/Y60gW/D96K/F97G/Ins97aV/G151H, I41S/D60bT/F60eS,
I41S/D60bT/F60eS/G151H, I41S/D60bT/F60eS/Ins97aV,
I41S/D60bT/F60eS/Ins97aV/G151H, I41S/D60bT/F60eS/F97G,
I41S/D60bT/F60eS/F97G/G151H, I41S/D60bT/F60eS/F97G/Ins97aV,
I41S/D60bT/F60eS/F97G/Ins97aV/G151H, I41S/D60bT/F60eS/D96K,
I41S/D60bT/F60eS/D96K/G151H, I41S/D60bT/F60eS/D96K/Ins97aV,
I41S/D60bT/F60eS/D96K/Ins97aV/G151H, I41S/D60bT/F60eS/D96K/F97G,
I41S/D60bT/F60eS/D96K/F97G/G151H, I41S/D60bT/F60eS/D96K/F97G/Ins97aV,
I41S/D60bT/F60eS/D96K/F97G/Ins97aV/G151H, I41S/D60bT/F60eS/Y60gW,
I41S/D60bT/F60eS/Y60gW/G151H, I41S/D60bT/F60eS/Y60gW/Ins97aV,
I41S/D60bT/F60eS/Y60gW/Ins97aV/G151H, I41S/D60bT/F60eS/Y60gW/F97G,
I41S/D60bT/F60eS/Y60gW/F97G/G151H, I41S/D60bT/F60eS/Y60gW/F97G/Ins97aV,
I41S/D60bT/F60eS/Y60gW/F97G/Ins97aV/G151H, I41S/D60bT/F60eS/Y60gW/D96K,
I41S/D60bT/F60eS/Y60gW/D96K/G151H, I41S/D60bT/F60eS/Y60gW/D96K/Ins97aV,
I41S/D60bT/F60eS/Y60gW/D96K/Ins97aV/G151H,
I41S/D60bT/F60eS/Y60gW/D96K/F97G, I41S/D60bT/F60eS/Y60gW/D96K/F97G/G151H,
I41S/D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV,
I41S/D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV/G151H, Q38H, Q38H/G151H,
Q38H/Ins97aV, Q38H/Ins97aV/G151H, Q38H/F97G, Q38H/F97G/G151H,
Q38H/F97G/Ins97aV, Q38H/F97G/Ins97aV/G151H, Q38H/D96K, Q38H/D96K/G151H,
Q38H/D96K/Ins97aV, Q38H/D96K/Ins97aV/G151H, Q38H/D96K/F97G,
Q38H/D96K/F97G/G151H, Q38H/D96K/F97G/Ins97aV,
Q38H/D96K/F97G/Ins97aV/G151H, Q38H/Y60gW, Q38H/Y60gW/G151H,
Q38H/Y60gW/Ins97aV, Q38H/Y60gW/Ins97aV/G151H, Q38H/Y60gW/F97G,
Q38H/Y60gW/F97G/G151H, Q38H/Y60gW/F97G/Ins97aV,
Q38H/Y60gW/F97G/Ins97aV/G151H, Q38H/Y60gW/D96K, Q38H/Y60gW/D96K/G151H,
Q38H/Y60gW/D96K/Ins97aV, Q38H/Y60gW/D96K/Ins97aV/G151H,

Q38H/Y60gW/D96K/F97G, Q38H/Y60gW/D96K/F97G/G151H,
Q38H/Y60gW/D96K/F97G/Ins97aV, Q38H/Y60gW/D96K/F97G/Ins97aV/G151H,
Q38H/F60eS, Q38H/F60eS/G151H, Q38H/F60eS/Ins97aV, Q38H/F60eS/Ins97aV/G151H,
Q38H/F60eS/F97G, Q38H/F60eS/F97G/G151H, Q38H/F60eS/F97G/Ins97aV,
Q38H/F60eS/F97G/Ins97aV/G151H, Q38H/F60eS/D96K, Q38H/F60eS/D96K/G151H,
Q38H/F60eS/D96K/Ins97aV, Q38H/F60eS/D96K/Ins97aV/G151H,
Q38H/F60eS/D96K/F97G, Q38H/F60eS/D96K/F97G/G151H,
Q38H/F60eS/D96K/F97G/Ins97aV, Q38H/F60eS/D96K/F97G/Ins97aV/G151H,
Q38H/F60eS/Y60gW, Q38H/F60eS/Y60gW/G151H, Q38H/F60eS/Y60gW/Ins97aV,
Q38H/F60eS/Y60gW/Ins97aV/G151H, Q38H/F60eS/Y60gW/F97G,
Q38H/F60eS/Y60gW/F97G/G151H, Q38H/F60eS/Y60gW/F97G/Ins97aV,
Q38H/F60eS/Y60gW/F97G/Ins97aV/G151H, Q38H/F60eS/Y60gW/D96K,
Q38H/F60eS/Y60gW/D96K/G151H, Q38H/F60eS/Y60gW/D96K/Ins97aV,
Q38H/F60eS/Y60gW/D96K/Ins97aV/G151H, Q38H/F60eS/Y60gW/D96K/F97G,
Q38H/F60eS/Y60gW/D96K/F97G/G151H, Q38H/F60eS/Y60gW/D96K/F97G/Ins97aV,
Q38H/F60eS/Y60gW/D96K/F97G/Ins97aV/G151H, Q38H/D60bT, Q38H/D60bT/G151H,
Q38H/D60bT/Ins97aV, Q38H/D60bT/Ins97aV/G151H, Q38H/D60bT/F97G,
Q38H/D60bT/F97G/G151H, Q38H/D60bT/F97G/Ins97aV,
Q38H/D60bT/F97G/Ins97aV/G151H, Q38H/D60bT/D96K, Q38H/D60bT/D96K/G151H,
Q38H/D60bT/D96K/Ins97aV, Q38H/D60bT/D96K/Ins97aV/G151H,
Q38H/D60bT/D96K/F97G, Q38H/D60bT/D96K/F97G/G151H,
Q38H/D60bT/D96K/F97G/Ins97aV, Q38H/D60bT/D96K/F97G/Ins97aV/G151H,
Q38H/D60bT/Y60gW, Q38H/D60bT/Y60gW/G151H, Q38H/D60bT/Y60gW/Ins97aV,
Q38H/D60bT/Y60gW/Ins97aV/G151H, Q38H/D60bT/Y60gW/F97G,
Q38H/D60bT/Y60gW/F97G/G151H, Q38H/D60bT/Y60gW/F97G/Ins97aV,
Q38H/D60bT/Y60gW/F97G/Ins97aV/G151H, Q38H/D60bT/Y60gW/D96K,
Q38H/D60bT/Y60gW/D96K/G151H, Q38H/D60bT/Y60gW/D96K/Ins97aV,
Q38H/D60bT/Y60gW/D96K/Ins97aV/G151H, Q38H/D60bT/Y60gW/D96K/F97G,
Q38H/D60bT/Y60gW/D96K/F97G/G151H, Q38H/D60bT/Y60gW/D96K/F97G/Ins97aV,
Q38H/D60bT/Y60gW/D96K/F97G/Ins97aV/G151H, Q38H/D60bT/F60eS,
Q38H/D60bT/F60eS/G151H, Q38H/D60bT/F60eS/Ins97aV,
Q38H/D60bT/F60eS/Ins97aV/G151H, Q38H/D60bT/F60eS/F97G,
Q38H/D60bT/F60eS/F97G/G151H, Q38H/D60bT/F60eS/F97G/Ins97aV,
Q38H/D60bT/F60eS/F97G/Ins97aV/G151H, Q38H/D60bT/F60eS/D96K,

Q38H/D60bT/F60eS/D96K/G151H, Q38H/D60bT/F60eS/D96K/Ins97aV,
Q38H/D60bT/F60eS/D96K/Ins97aV/G151H, Q38H/D60bT/F60eS/D96K/F97G,
Q38H/D60bT/F60eS/D96K/F97G/G151H, Q38H/D60bT/F60eS/D96K/F97G/Ins97aV,
Q38H/D60bT/F60eS/D96K/F97G/Ins97aV/G151H, Q38H/D60bT/F60eS/Y60gW,
Q38H/D60bT/F60eS/Y60gW/G151H, Q38H/D60bT/F60eS/Y60gW/Ins97aV,
Q38H/D60bT/F60eS/Y60gW/Ins97aV/G151H, Q38H/D60bT/F60eS/Y60gW/F97G,
Q38H/D60bT/F60eS/Y60gW/F97G/G151H, Q38H/D60bT/F60eS/Y60gW/F97G/Ins97aV,
Q38H/D60bT/F60eS/Y60gW/F97G/Ins97aV/G151H, Q38H/D60bT/F60eS/Y60gW/D96K,
Q38H/D60bT/F60eS/Y60gW/D96K/G151H, Q38H/D60bT/F60eS/Y60gW/D96K/Ins97aV,
Q38H/D60bT/F60eS/Y60gW/D96K/Ins97aV/G151H,
Q38H/D60bT/F60eS/Y60gW/D96K/F97G,
Q38H/D60bT/F60eS/Y60gW/D96K/F97G/G151H,
Q38H/D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV,
Q38H/D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV/G151H, Q38H/I41S,
Q38H/I41S/G151H, Q38H/I41S/Ins97aV, Q38H/I41S/Ins97aV/G151H, Q38H/I41S/F97G,
Q38H/I41S/F97G/G151H, Q38H/I41S/F97G/Ins97aV, Q38H/I41S/F97G/Ins97aV/G151H,
Q38H/I41S/D96K, Q38H/I41S/D96K/G151H, Q38H/I41S/D96K/Ins97aV,
Q38H/I41S/D96K/Ins97aV/G151H, Q38H/I41S/D96K/F97G,
Q38H/I41S/D96K/F97G/G151H, Q38H/I41S/D96K/F97G/Ins97aV,
Q38H/I41S/D96K/F97G/Ins97aV/G151H, Q38H/I41S/Y60gW, Q38H/I41S/Y60gW/G151H,
Q38H/I41S/Y60gW/Ins97aV, Q38H/I41S/Y60gW/Ins97aV/G151H,
Q38H/I41S/Y60gW/F97G, Q38H/I41S/Y60gW/F97G/G151H,
Q38H/I41S/Y60gW/F97G/Ins97aV, Q38H/I41S/Y60gW/F97G/Ins97aV/G151H,
Q38H/I41S/Y60gW/D96K, Q38H/I41S/Y60gW/D96K/G151H,
Q38H/I41S/Y60gW/D96K/Ins97aV, Q38H/I41S/Y60gW/D96K/Ins97aV/G151H,
Q38H/I41S/Y60gW/D96K/F97G, Q38H/I41S/Y60gW/D96K/F97G/G151H,
Q38H/I41S/Y60gW/D96K/F97G/Ins97aV,
Q38H/I41S/Y60gW/D96K/F97G/Ins97aV/G151H, Q38H/I41S/F60eS,
Q38H/I41S/F60eS/G151H, Q38H/I41S/F60eS/Ins97aV, Q38H/I41S/F60eS/Ins97aV/G151H,
Q38H/I41S/F60eS/F97G, Q38H/I41S/F60eS/F97G/G151H,
Q38H/I41S/F60eS/F97G/Ins97aV, Q38H/I41S/F60eS/F97G/Ins97aV/G151H,
Q38H/I41S/F60eS/D96K, Q38H/I41S/F60eS/D96K/G151H,
Q38H/I41S/F60eS/D96K/Ins97aV, Q38H/I41S/F60eS/D96K/Ins97aV/G151H,
Q38H/I41S/F60eS/D96K/F97G, Q38H/I41S/F60eS/D96K/F97G/G151H,

Q38H/I41S/F60eS/D96K/F97G/Ins97aV, Q38H/I41S/F60eS/D96K/F97G/Ins97aV/G151H,
Q38H/I41S/F60eS/Y60gW, Q38H/I41S/F60eS/Y60gW/G151H,
Q38H/I41S/F60eS/Y60gW/Ins97aV, Q38H/I41S/F60eS/Y60gW/Ins97aV/G151H,
Q38H/I41S/F60eS/Y60gW/F97G, Q38H/I41S/F60eS/Y60gW/F97G/G151H,
Q38H/I41S/F60eS/Y60gW/F97G/Ins97aV,
Q38H/I41S/F60eS/Y60gW/F97G/Ins97aV/G151H, Q38H/I41S/F60eS/Y60gW/D96K,
Q38H/I41S/F60eS/Y60gW/D96K/G151H, Q38H/I41S/F60eS/Y60gW/D96K/Ins97aV,
Q38H/I41S/F60eS/Y60gW/D96K/Ins97aV/G151H, Q38H/I41S/F60eS/Y60gW/D96K/F97G,
Q38H/I41S/F60eS/Y60gW/D96K/F97G/G151H,
Q38H/I41S/F60eS/Y60gW/D96K/F97G/Ins97aV,
Q38H/I41S/F60eS/Y60gW/D96K/F97G/Ins97aV/G151H, Q38H/I41S/D60bT,
Q38H/I41S/D60bT/G151H, Q38H/I41S/D60bT/Ins97aV,
Q38H/I41S/D60bT/Ins97aV/G151H, Q38H/I41S/D60bT/F97G,
Q38H/I41S/D60bT/F97G/G151H, Q38H/I41S/D60bT/F97G/Ins97aV,
Q38H/I41S/D60bT/F97G/Ins97aV/G151H, Q38H/I41S/D60bT/D96K,
Q38H/I41S/D60bT/D96K/G151H, Q38H/I41S/D60bT/D96K/Ins97aV,
Q38H/I41S/D60bT/D96K/Ins97aV/G151H, Q38H/I41S/D60bT/D96K/F97G,
Q38H/I41S/D60bT/D96K/F97G/G151H, Q38H/I41S/D60bT/D96K/F97G/Ins97aV,
Q38H/I41S/D60bT/D96K/F97G/Ins97aV/G151H, Q38H/I41S/D60bT/Y60gW,
Q38H/I41S/D60bT/Y60gW/G151H, Q38H/I41S/D60bT/Y60gW/Ins97aV,
Q38H/I41S/D60bT/Y60gW/Ins97aV/G151H, Q38H/I41S/D60bT/Y60gW/F97G,
Q38H/I41S/D60bT/Y60gW/F97G/G151H, Q38H/I41S/D60bT/Y60gW/F97G/Ins97aV,
Q38H/I41S/D60bT/Y60gW/F97G/Ins97aV/G151H, Q38H/I41S/D60bT/Y60gW/D96K,
Q38H/I41S/D60bT/Y60gW/D96K/G151H, Q38H/I41S/D60bT/Y60gW/D96K/Ins97aV,
Q38H/I41S/D60bT/Y60gW/D96K/Ins97aV/G151H,
Q38H/I41S/D60bT/Y60gW/D96K/F97G, Q38H/I41S/D60bT/Y60gW/D96K/F97G/G151H,
Q38H/I41S/D60bT/Y60gW/D96K/F97G/Ins97aV,
Q38H/I41S/D60bT/Y60gW/D96K/F97G/Ins97aV/G151H, Q38H/I41S/D60bT/F60eS,
Q38H/I41S/D60bT/F60eS/G151H, Q38H/I41S/D60bT/F60eS/Ins97aV,
Q38H/I41S/D60bT/F60eS/Ins97aV/G151H, Q38H/I41S/D60bT/F60eS/F97G,
Q38H/I41S/D60bT/F60eS/F97G/G151H, Q38H/I41S/D60bT/F60eS/F97G/Ins97aV,
Q38H/I41S/D60bT/F60eS/F97G/Ins97aV/G151H, Q38H/I41S/D60bT/F60eS/D96K,
Q38H/I41S/D60bT/F60eS/D96K/G151H, Q38H/I41S/D60bT/F60eS/D96K/Ins97aV,
Q38H/I41S/D60bT/F60eS/D96K/Ins97aV/G151H, Q38H/I41S/D60bT/F60eS/D96K/F97G,

Q38H/I41S/D60bT/F60eS/D96K/F97G/G151H,
Q38H/I41S/D60bT/F60eS/D96K/F97G/Ins97aV,
Q38H/I41S/D60bT/F60eS/D96K/F97G/Ins97aV/G151H, Q38H/I41S/D60bT/F60eS/Y60gW,
Q38H/I41S/D60bT/F60eS/Y60gW/G151H, Q38H/I41S/D60bT/F60eS/Y60gW/Ins97aV,
Q38H/I41S/D60bT/F60eS/Y60gW/Ins97aV/G151H,
Q38H/I41S/D60bT/F60eS/Y60gW/F97G, Q38H/I41S/D60bT/F60eS/Y60gW/F97G/G151H,
Q38H/I41S/D60bT/F60eS/Y60gW/F97G/Ins97aV,
Q38H/I41S/D60bT/F60eS/Y60gW/F97G/Ins97aV/G151H,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K, Q38H/I41S/D60bT/F60eS/Y60gW/D96K/G151H,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/Ins97aV,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/Ins97aV/G151H,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/G151H,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV/G151H, and the same
modifications except C122S is not modified and is C122C.

13. The modified MTSP-1 polypeptide of any of claims 1-9, comprising
modifications selected from among combinations of replacements that include one or more
selected from among: Q38H, I41S, D60bT, F60eS, Y60gW, D96K, F97G, Ins97aV, and
G151H, and include the replacements T98P/F99L/Q175L/Q192D, and optionally C122S, as
follows:

T98P/F99L/C122S/G151H/Q175L/Q192D, Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
F97G/T98P/F99L/C122S/Q175L/Q192D, F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D96K/T98P/F99L/C122S/Q175L/Q192D, D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,

Y60gW/T98P/F99L/C122S/Q175L/Q192D,
Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/T98P/F99L/C122S/Q175L/Q192D, F60eS/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
F60eS/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/F97G/T98P/F99L/C122S/Q175L/Q192D,
F60eS/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
F60eS/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/D96K/T98P/F99L/C122S/Q175L/Q192D,
F60eS/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
F60eS/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
F60eS/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
F60eS/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,

F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
F60eS/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
F60eS/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/T98P/F99L/C122S/Q175L/Q192D,
D60bT/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F97G/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/D96K/T98P/F99L/C122S/Q175L/Q192D,
D60bT/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
D60bT/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
D60bT/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,

D60bT/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
D60bT/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
D60bT/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/F97G/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/D96K/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,

D60bT/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/T98P/F99L/C122S/Q175L/Q192D, I41S/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D96K/T98P/F99L/C122S/Q175L/Q192D,
I41S/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
I41S/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
I41S/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,

I41S/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/D96K/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,

I41S/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/D96K/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,

I41S/D60bT/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/D96K/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
I41S/D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192

D, Q38H/T98P/F99L/C122S/Q175L/Q192D,
Q38H/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
Q38H/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/T98P/F99L/C122S/G151H/Q175L/Q192D,

Q38H/F60eS/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,

Q38H/D60bT/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,

Q38H/D60bT/F60eS/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
D,
Q38H/I41S/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,

Q38H/I41S/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/D96K/T98P/F99L/C122S/Q175L/Q192D,

Q38H/I41S/F60eS/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,

Q38H/I41S/D60bT/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D
, Q38H/I41S/D60bT/F60eS/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,

Q38H/I41S/D60bT/F60eS/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192
D, Q38H/I41S/D60bT/F60eS/Y60gW/D96K/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/Ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192
D, Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/T98P/F99L/C122S/G151H/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/Q175L/Q192D,
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/Ins97aV/T98P/F99L/C122S/G151H/Q175L/
Q192D, and the same modifications except C122S is not modified and is C122C.

14. The modified MTSP-1 polypeptide of any of claims 1-9, comprising modifications corresponding to
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/ins97aV/T98P/F99L/C122S/G151H/Q175L/
Q192D or
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/ins97aV/T98P/F99L/G151H/Q175L/Q192D,
wherein the unmodified MTSP-1 polypeptide comprises the protease domain of SEQ ID
NO:2 or SEQ ID NO:4.

15. The modified MTSP-1 polypeptide of any of claims 1-9, comprising modifications corresponding to I41D/C122S/G151N/Q192T or I41D /G151N/Q192T or
I41E/F99L/C122S/G151N/Q192T or I41E/F99L/G151N/Q192T, wherein the unmodified
MTSP-1 polypeptide comprises the protease domain of SEQ ID NO:2 or SEQ ID NO:4.

16. The modified MTSP-1 polypeptide of any of claims 1-9, wherein the modified MTSP-1 polypeptide comprises the sequence of amino acid residues set forth in any of SEQ ID NOs: 6, 8, 21-59 and 63-81.

17. The modified MTSP-1 polypeptide of any of claims 1-9, wherein the modified MTSP-1 polypeptide comprises the sequence of amino acid residues set forth in SEQ ID NO:35.

18. The modified MTSP-1 polypeptide of any of claims 1-9, wherein the modified MTSP-1 polypeptide comprises the sequence of amino acid residues set forth in SEQ ID NO:35, except that the residue at position 122, by chymotrypsin numbering, is cysteine (C).

19. The modified MTSP-1 polypeptide of any of claims 1-18, wherein the unmodified MTSP-1 polypeptide consists of the sequence of amino acid residues set forth in SEQ ID NO:2 or 4.

20. The modified MTSP-1 polypeptide of any of claims 1-19 that is modified by a polymer to increase serum half-life or to reduce immunogenicity or both.

21. The modified MTSP-1 polypeptide of claim 20 that is PEGylated.

22. The modified MTSP-1 polypeptide of claim 18 that is PEGylated.

23. A fusion protein, comprising a modified MTSP-1 polypeptide or a catalytically active portion of a modified MTSP-1 polypeptide of any of claims 1-22 that is linked to a multimerization domain or a protein transduction domain (PTD).

24. The fusion protein of claim 23, wherein the polypeptide is linked to a multimerization domain that is an Fc domain.

25. A nucleic acid molecule, comprising a sequence of nucleotides encoding a modified MTSP-1 polypeptide of any of claims 1-22.

26. A vector, comprising the nucleic acid molecule of claim 25.

27. The vector of claim 26 that is a eukaryotic vector.

28. An isolated cell or a cell culture, comprising the nucleic acid molecule of claim 25 or the vector of claim 26 or claim 27, wherein the isolated cell is not a human zygote.

29. Use of a modified membrane type serine protease 1 (MTSP-1) polypeptide of any of claims 1-22 in the preparation of a medicament for the treatment of a disease or

condition mediated by or involving complement activation, wherein inhibition of complement activation effects treatment or amelioration of the disease or condition.

30. The use of claim 29, wherein the complement-mediated disease or condition is selected from among sepsis, Rheumatoid arthritis (RA), an ocular disease, membranoproliferative glomerulonephritis (MPGN), Multiple Sclerosis (MS), Myasthenia gravis (MG), asthma, inflammatory bowel disease, immune complex (IC)-mediated acute inflammatory tissue injury, Alzheimer's Disease (AD), and Ischemia-reperfusion injury.

31. The use of claim 29, wherein the disease or condition is an ocular disease or is rejection or inflammation due to a transplanted organ.

32. The use of claim 31, wherein the disease or condition is a diabetic retinopathy or a macular degeneration.

33. The use of claim 32, wherein the disease or condition is a macular degeneration.

34. The use of claim 33, wherein the macular degeneration is age-related macular degeneration (AMD).

35. The use of claim 31, wherein the disease or condition is delayed renal graft function (DGF).

36. The use of any of claims 29-35, wherein the modified MTSP-1 polypeptide is PEGylated.

37. The use of any of claims 29-36, wherein the modified MTSP-1 polypeptide comprises the sequence of amino acid residues set forth in SEQ ID NO:35 or SEQ ID NO:42, or the polypeptide the comprises the sequence of amino acid residues set forth in SEQ ID NO:35 or SEQ ID NO:42, but wherein residue 122 is cysteine (C).

38. The use of any of claims 29-37, wherein the modified MTSP-1 polypeptide comprises the modifications
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/ins97aV/T98P/F99L/G151H/Q175L/Q192D
or
Q38H/I41S/D60bT/F60eS/Y60gW/D96K/F97G/ins97aV/T98P/F99L/C122S/G151H/Q175L/Q192D.

39. The use of claim 38, wherein the modified MTSP-1 polypeptide is PEGylated.

40. A method of making a modified MTSP-1 polypeptide, comprising:
introducing a nucleic acid or vector encoding the modified MTSP-1 polypeptide of any of claims 1-22 into a cell;
culturing the cell under conditions, whereby the polypeptide is expressed; and
isolating the expressed polypeptide.
41. The method of claim 40, wherein nucleic acid encoding the modified MTSP-1 polypeptide is operatively linked to a Small Ubiquitin-like Modifier (SUMO) tag.
42. Use of the nucleic acid molecule of claim 25 in the preparation of a medicament for the treatment of a disease or condition mediated by or involving complement activation, wherein inhibition of complement activation effects treatment or amelioration of the disease or condition.
43. The use of claim 42, wherein the complement-mediated disease or condition is selected from among sepsis, Rheumatoid arthritis (RA), an ocular disease, membranoproliferative glomerulonephritis (MPGN), Multiple Sclerosis (MS), Myasthenia gravis (MG), asthma, inflammatory bowel disease, immune complex (IC)-mediated acute inflammatory tissue injury, Alzheimer's Disease (AD), and Ischemia-reperfusion injury.
44. The use of claim 42, wherein the disease or condition is an ocular disease or is rejection or inflammation due to a transplanted organ.
45. The use of claim 44, wherein the disease or condition is a diabetic retinopathy or a macular degeneration.
46. The use of claim 45, wherein the disease or condition is age-related macular degeneration (AMD).
47. A modified membrane type serine protease 1 (MTSP-1) polypeptide of any of claims 1-22 or the nucleic acid molecule of claim 25, or the vector of any of claims 26-27 for use in therapy.