

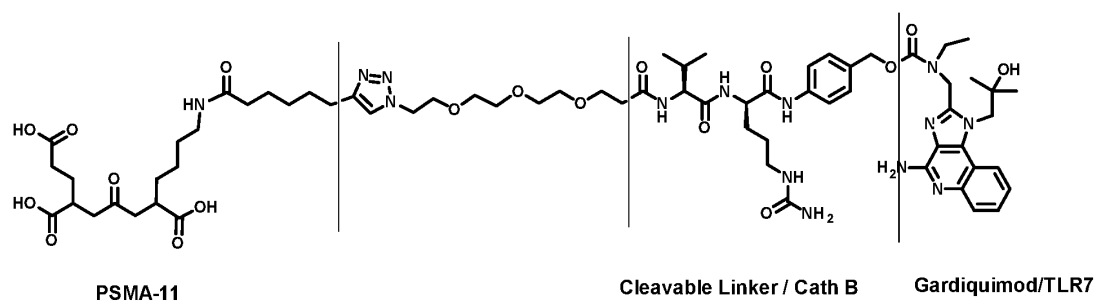


FIG. 1

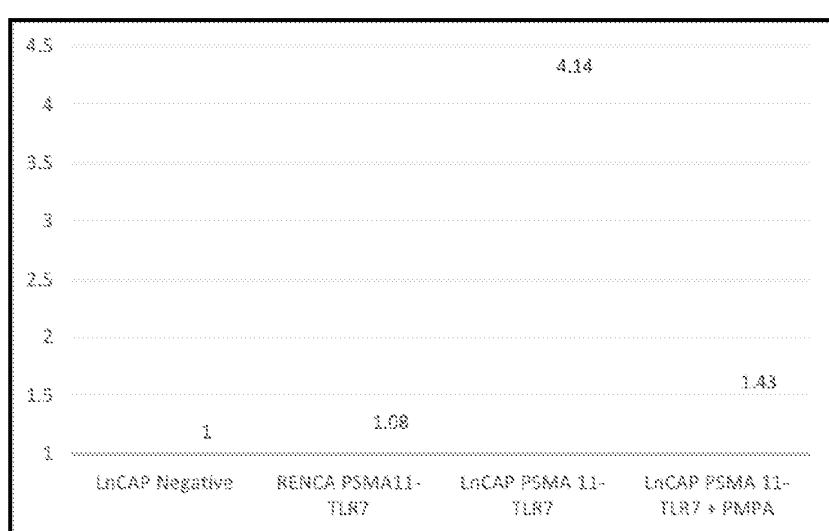


FIG. 2

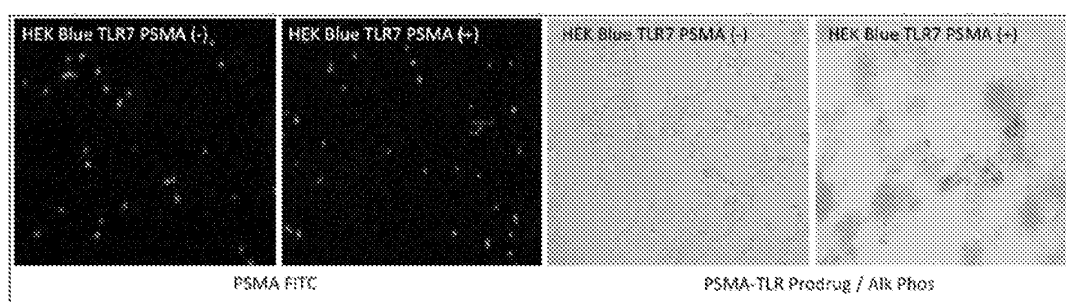


FIG. 3

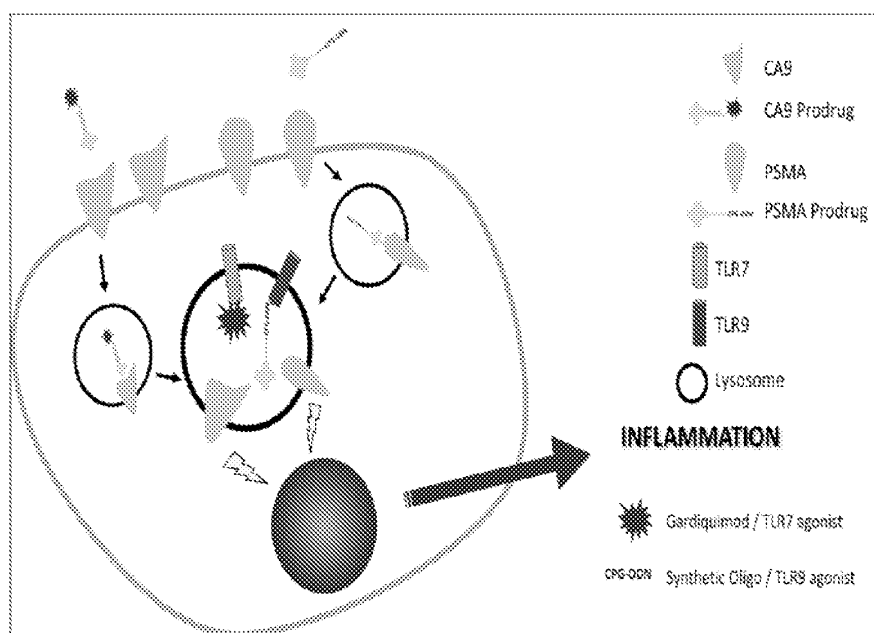


FIG. 4

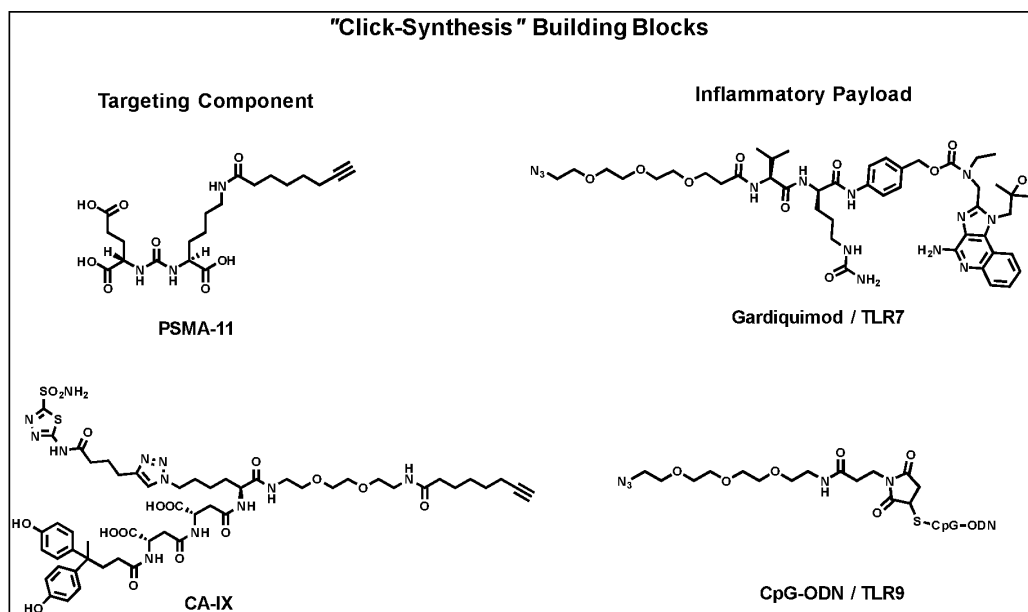


FIG. 5

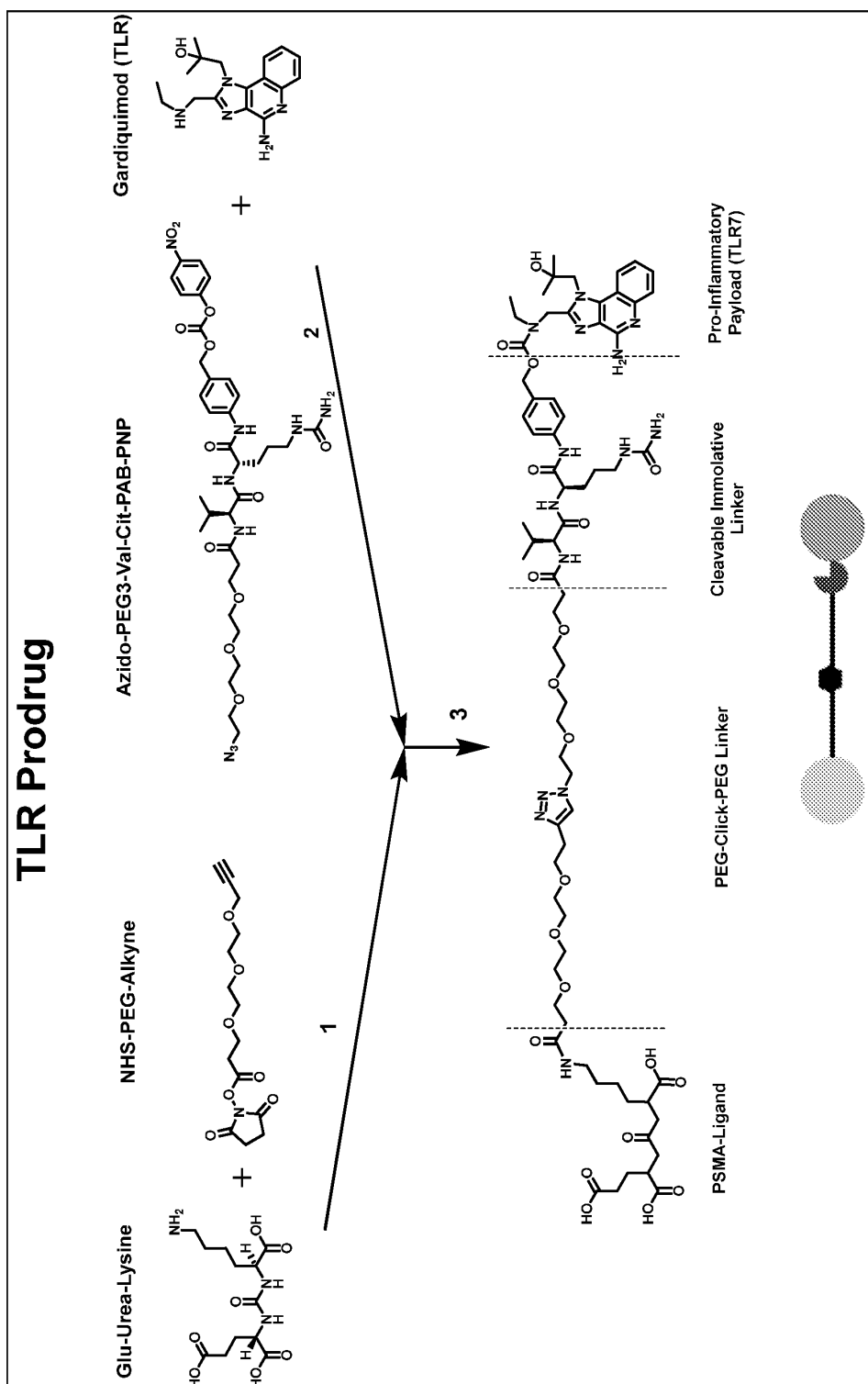
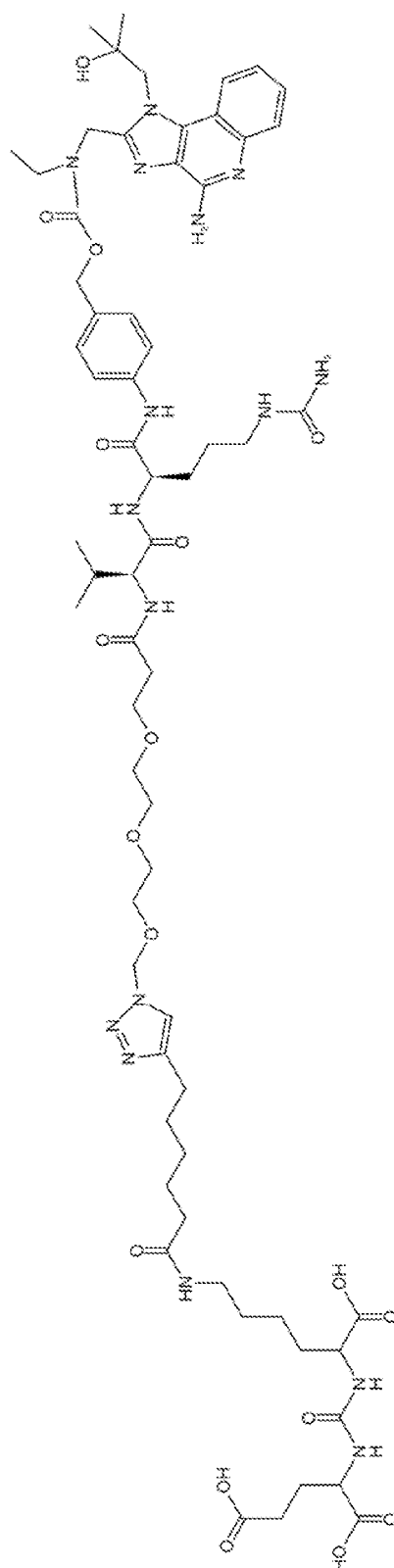


FIG. 6

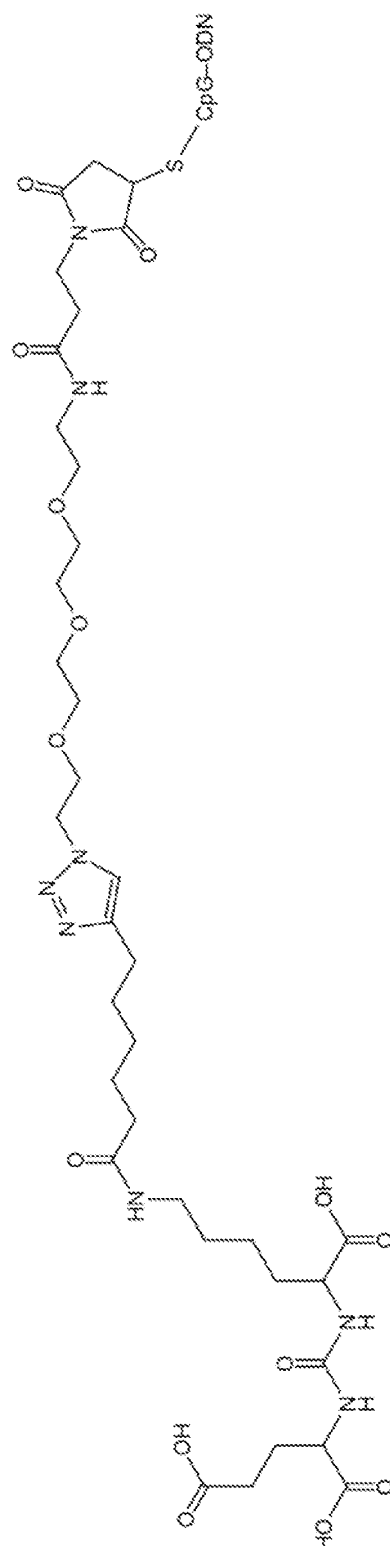
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PSMA TLR7

FIG. 7A

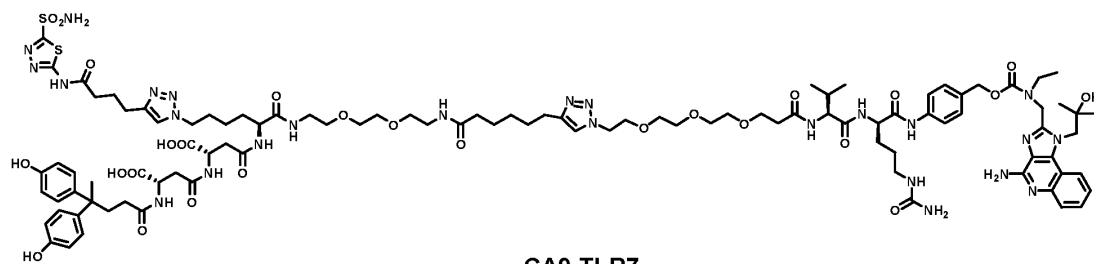
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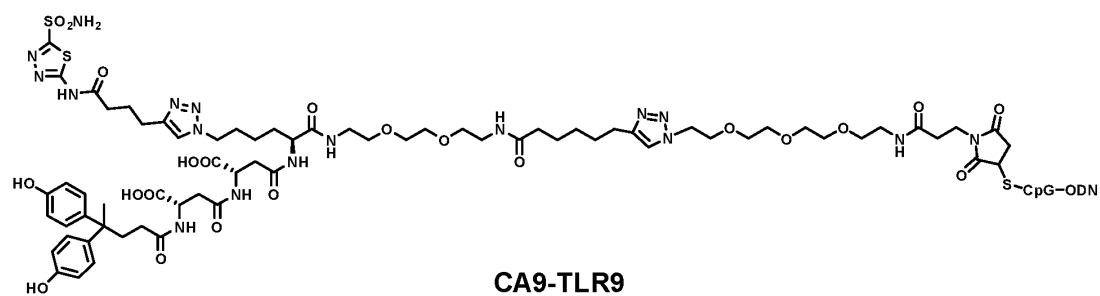
PSMA TLR9

FIG. 7A (cont.)

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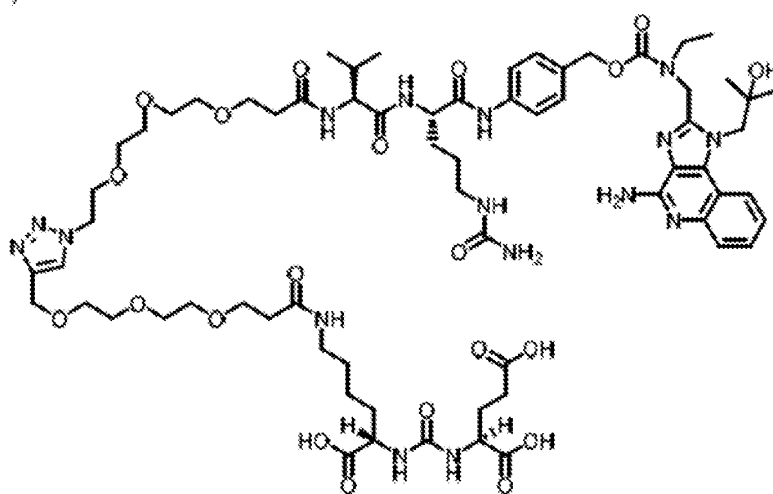


CA9-TLR7



CA9-TLR9

(1)

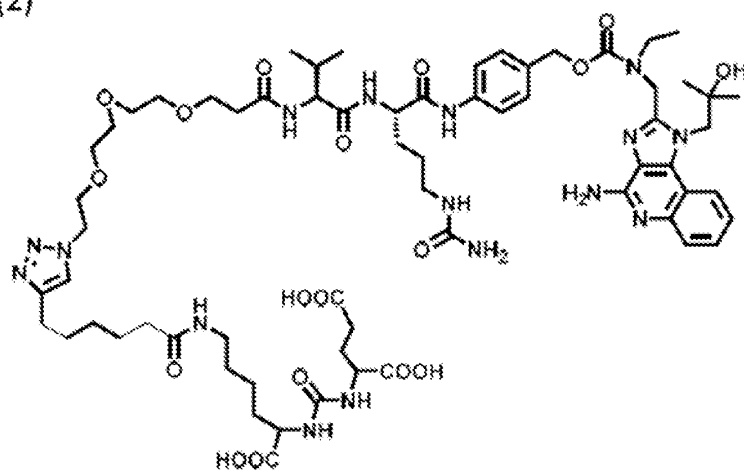


PSMA-Cathepsin-Gardiquimode

FIG. 7A (cont.)

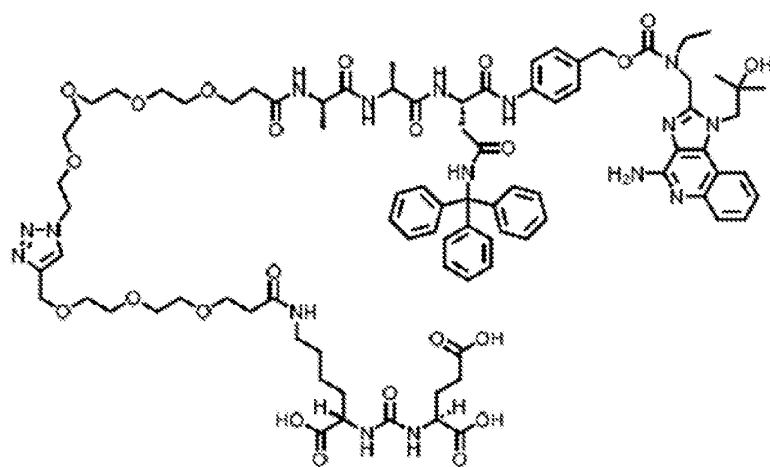
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(2)



PSMA-C5-Cathepsin-Gardiquimode

(3)



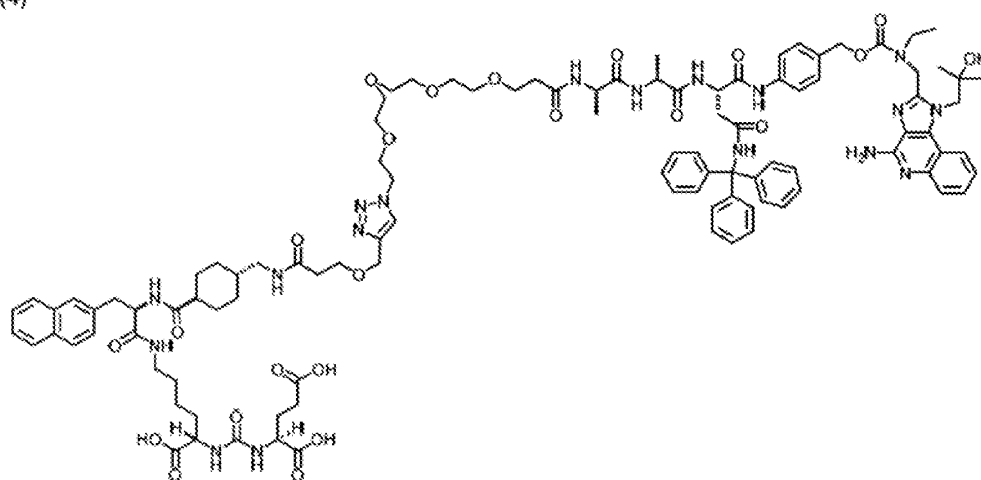
PSMA-Legu-Gardiquimode

FIG. 7A (cont.)

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(4)



PSMA617-Legu-Gardiquimode

(5)

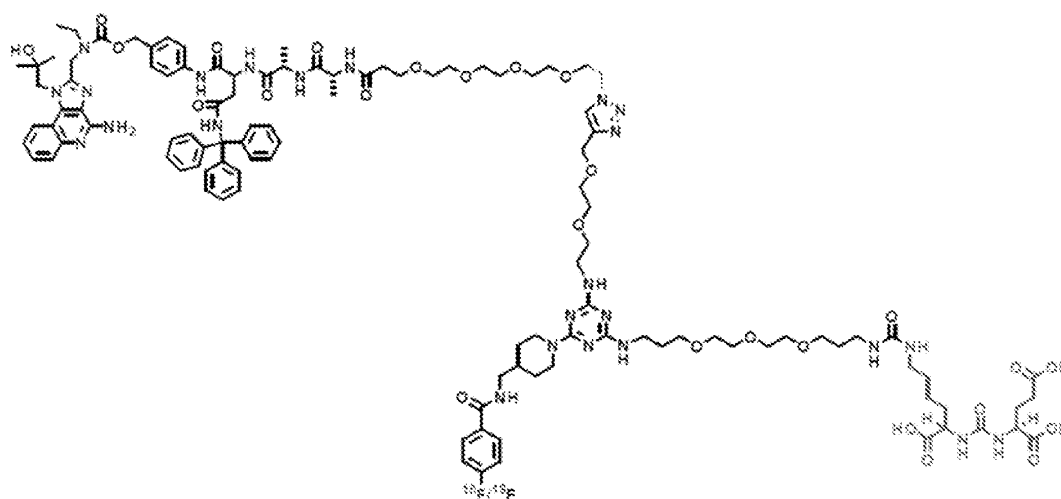
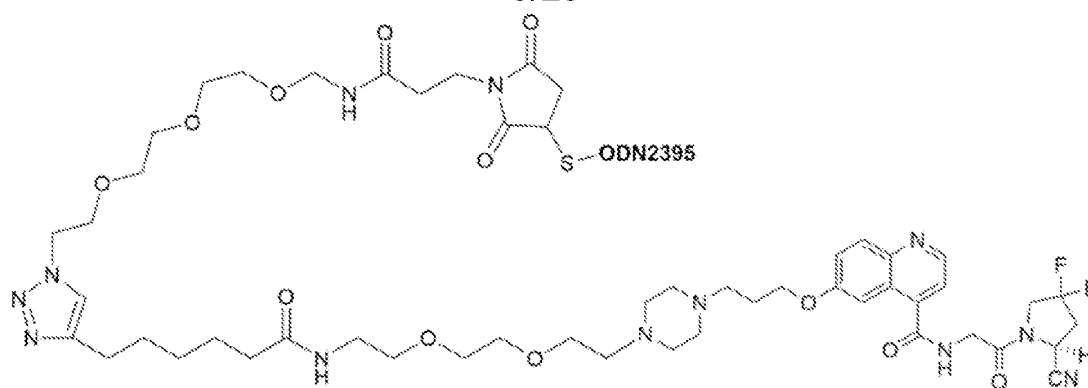
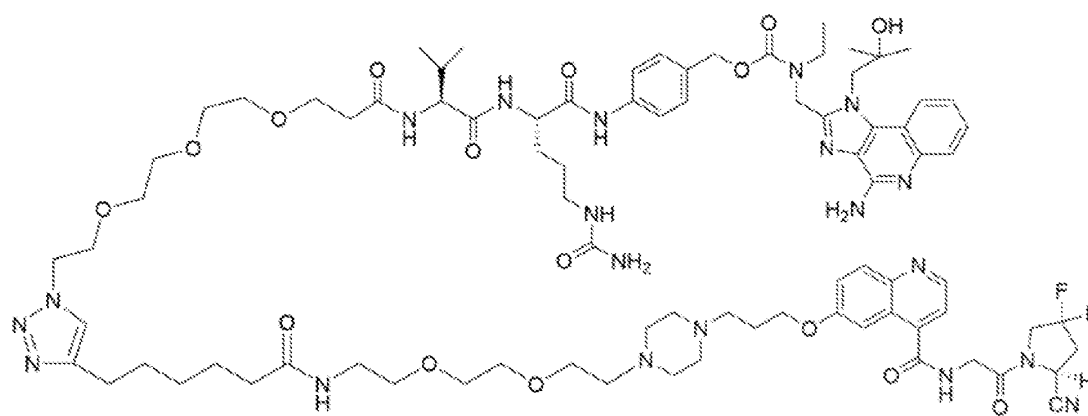
(5a) = TLR-LEGU-PSMA- ^{18}F SFB(5b) = TLR-LEGU-PSMA- ^{18}F SFB

FIG. 7A (cont.)

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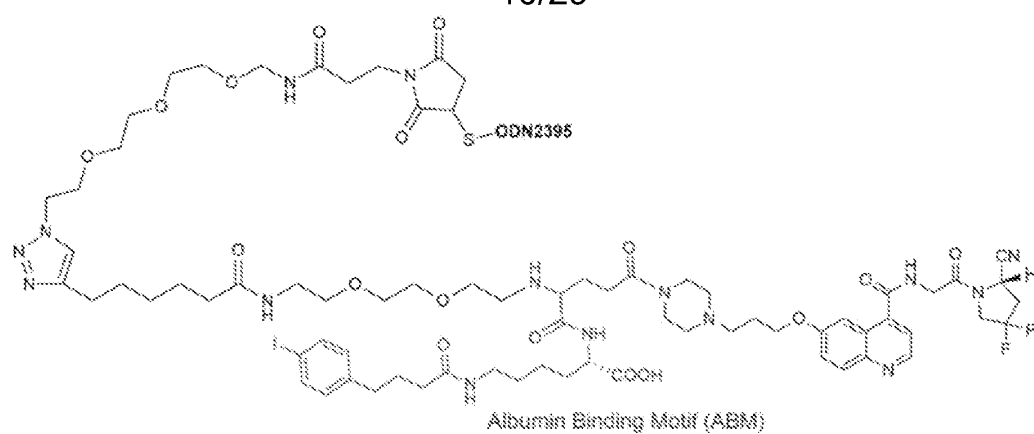
FAPI04-ODN2395



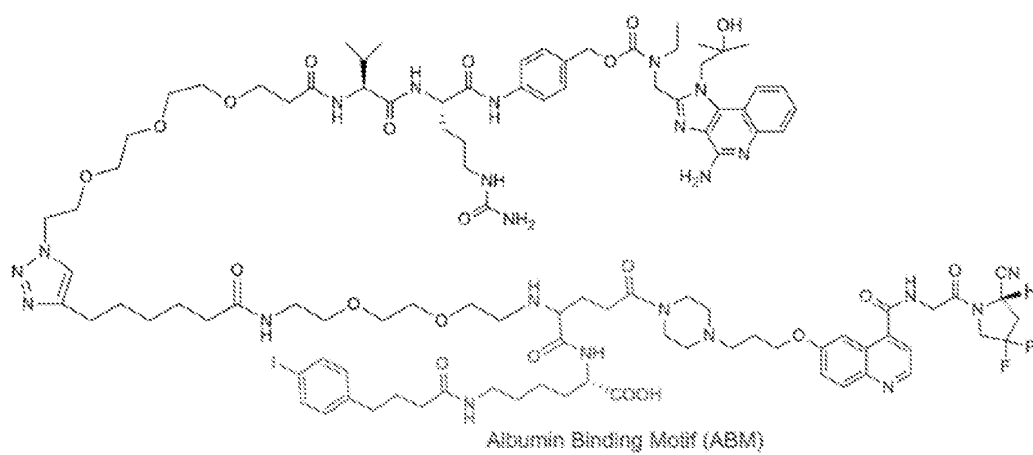
FAPI04-TLR7

FIG. 7B

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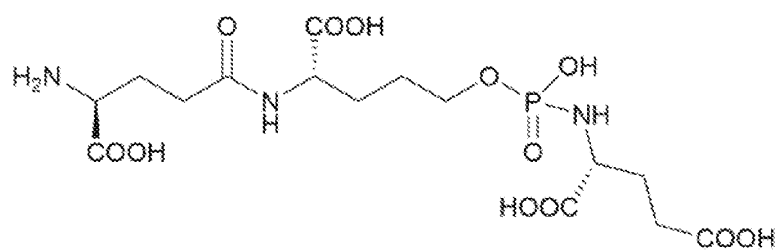


FAPI04-ASM-ODN2395



FAPI04-ASM-TLR7

FIG. 7C



Irreversible PSMA inhibitor

FIG. 7D

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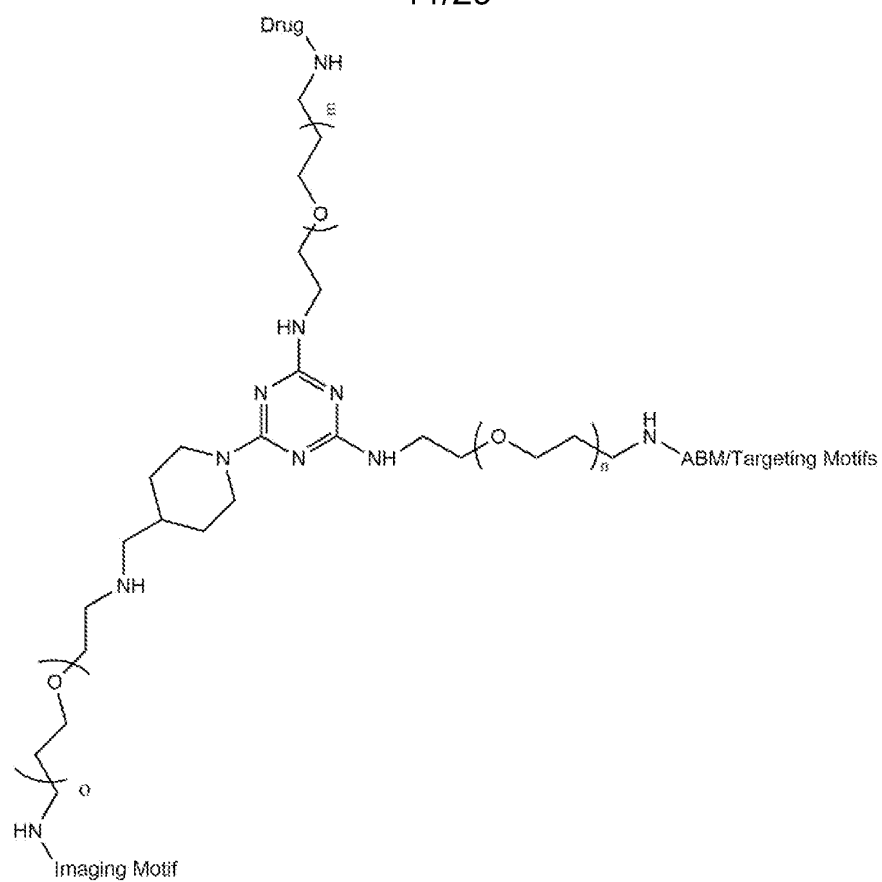


FIG. 7E

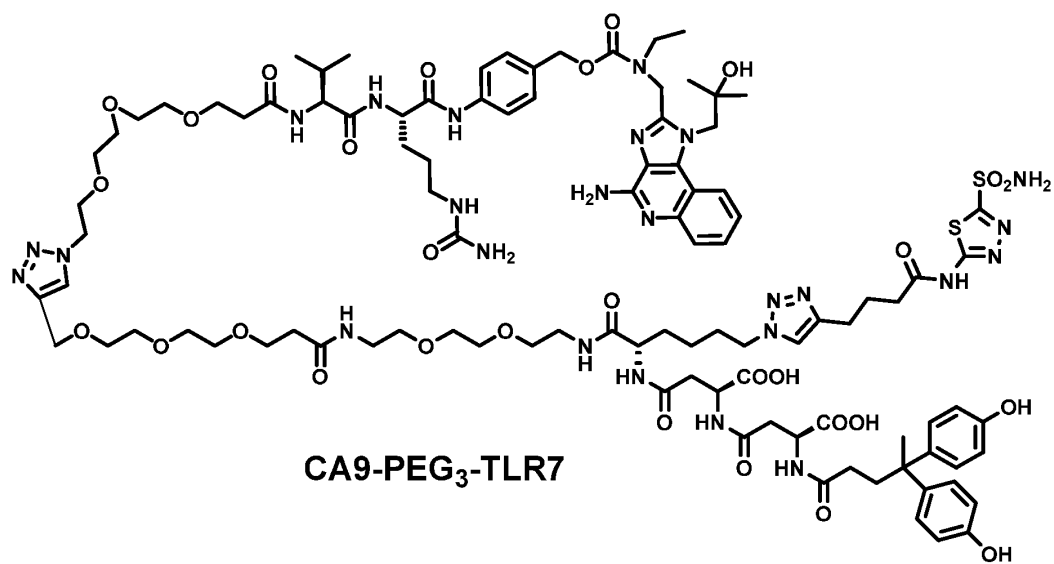


FIG. 7F

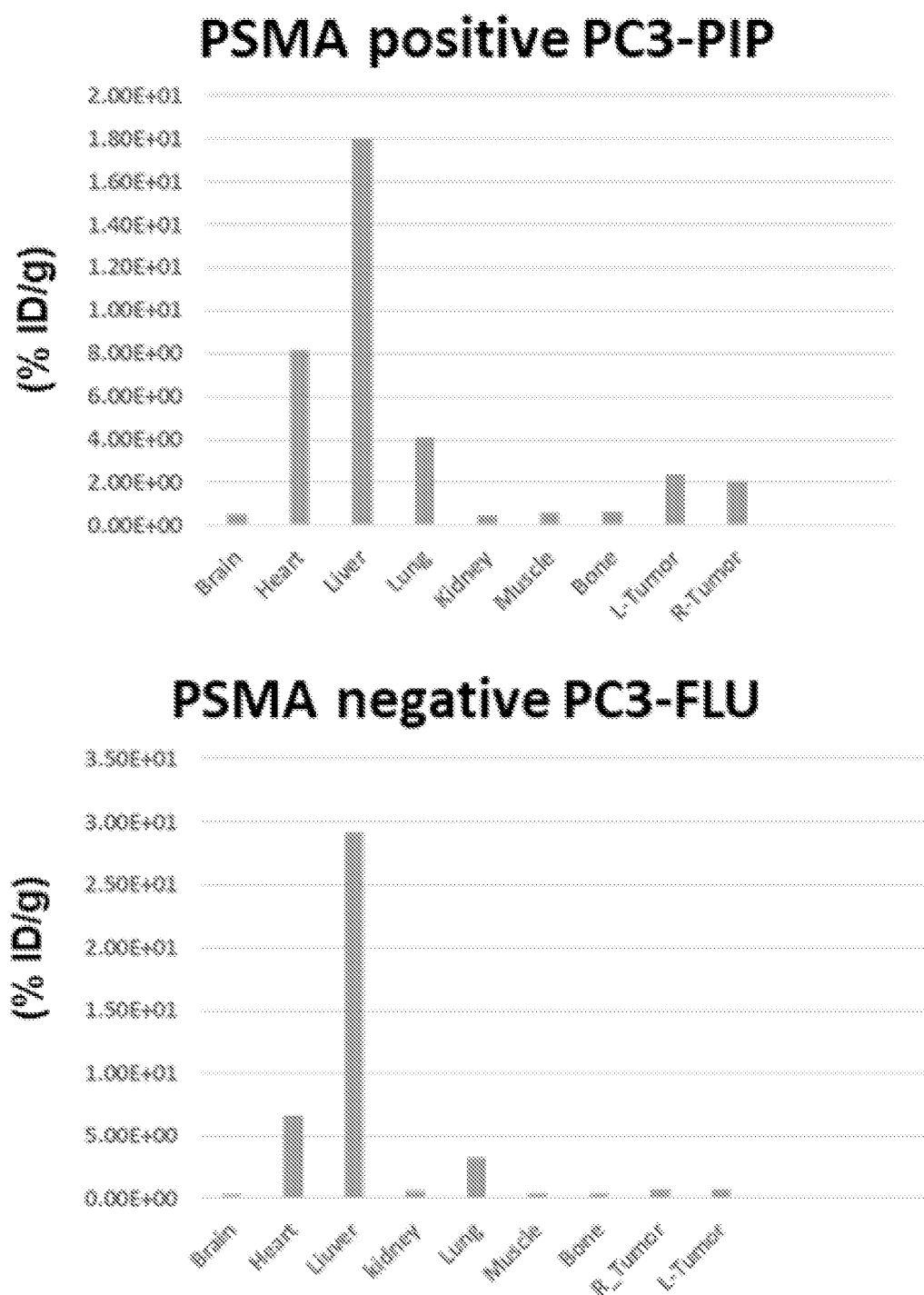


FIG. 8

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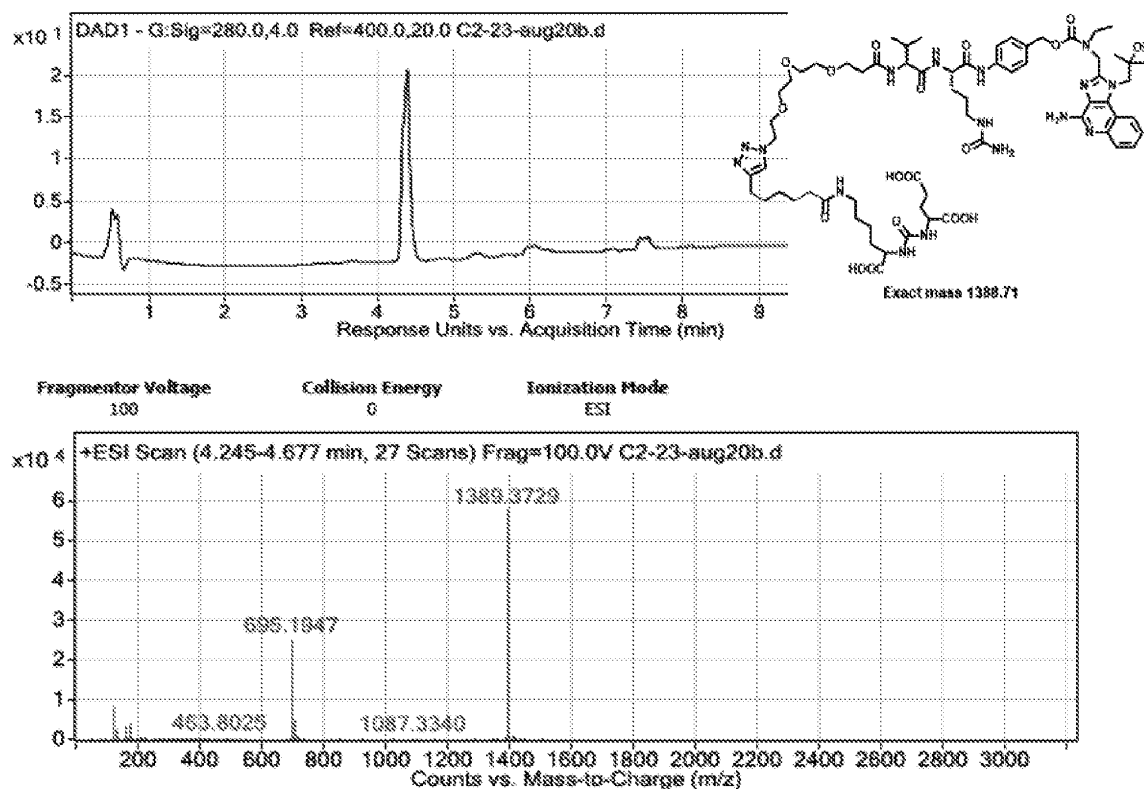


FIG. 10

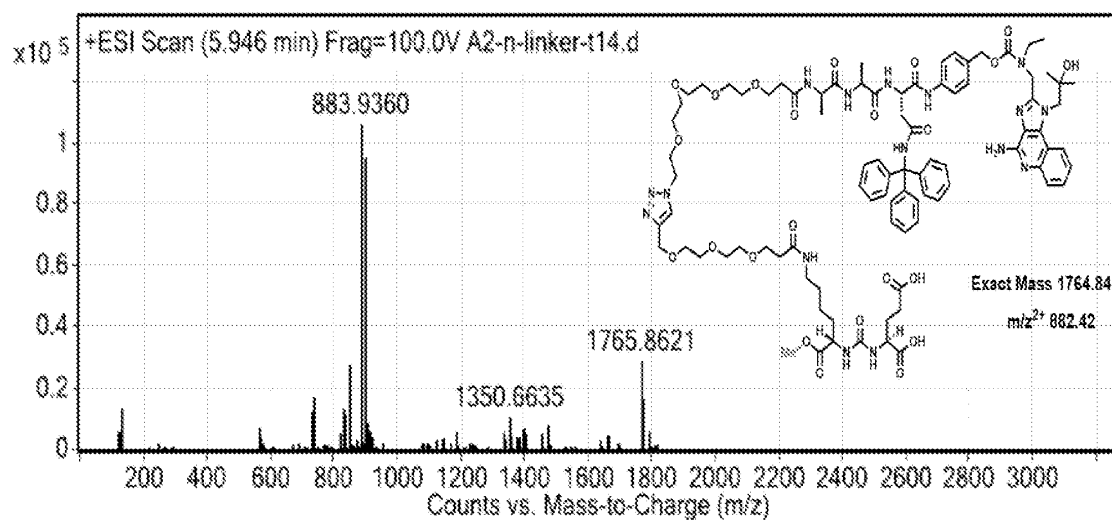


FIG. 11

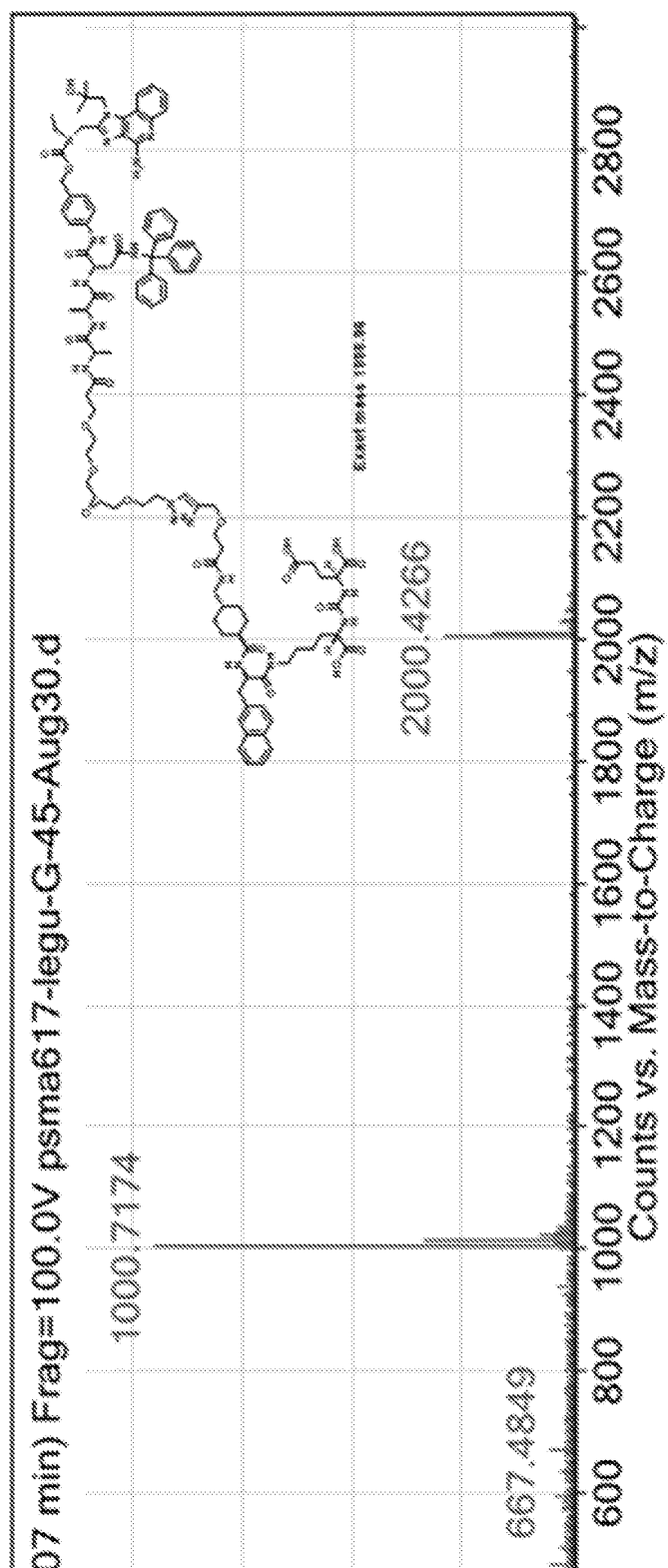


FIG. 12

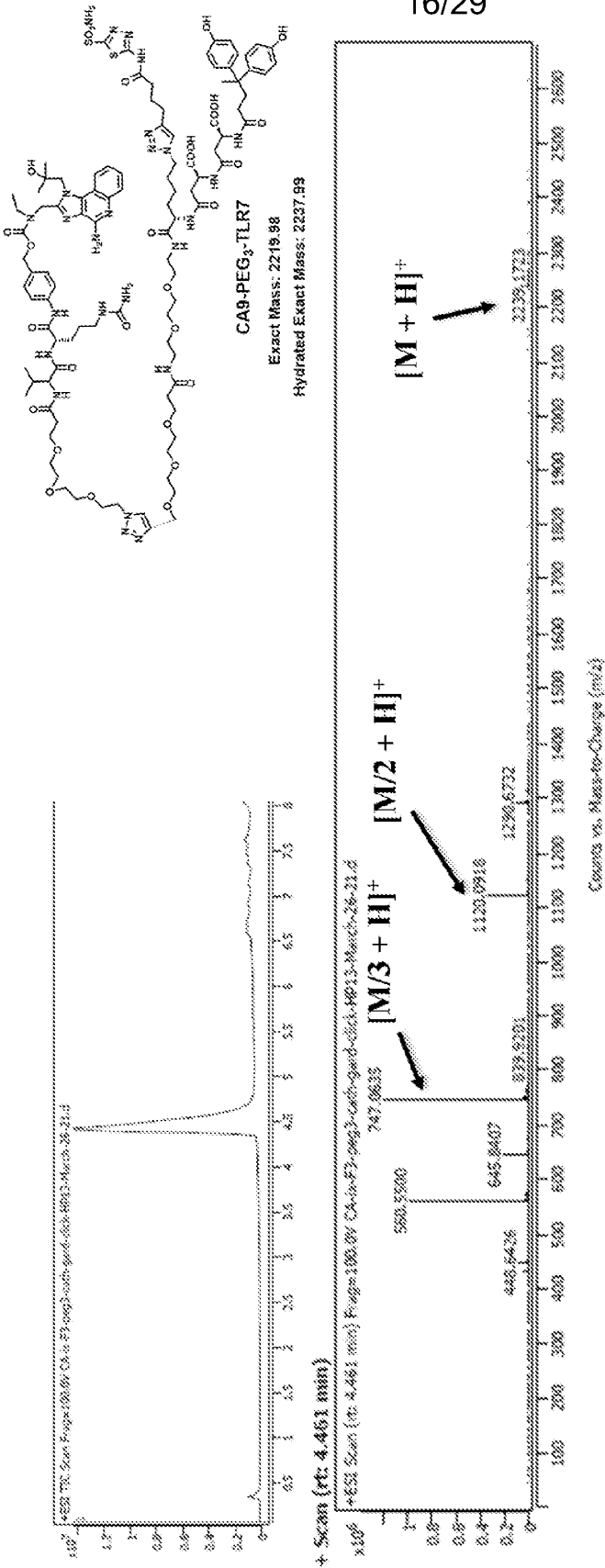


FIG. 13

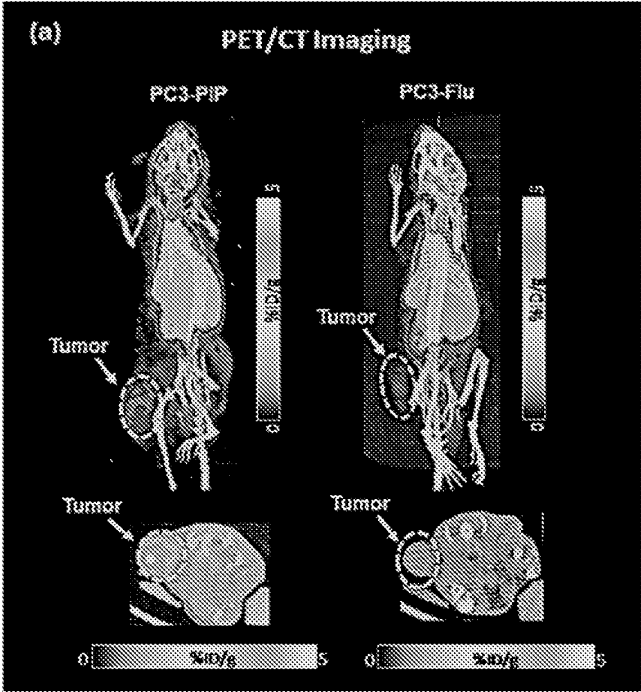


FIG. 14A

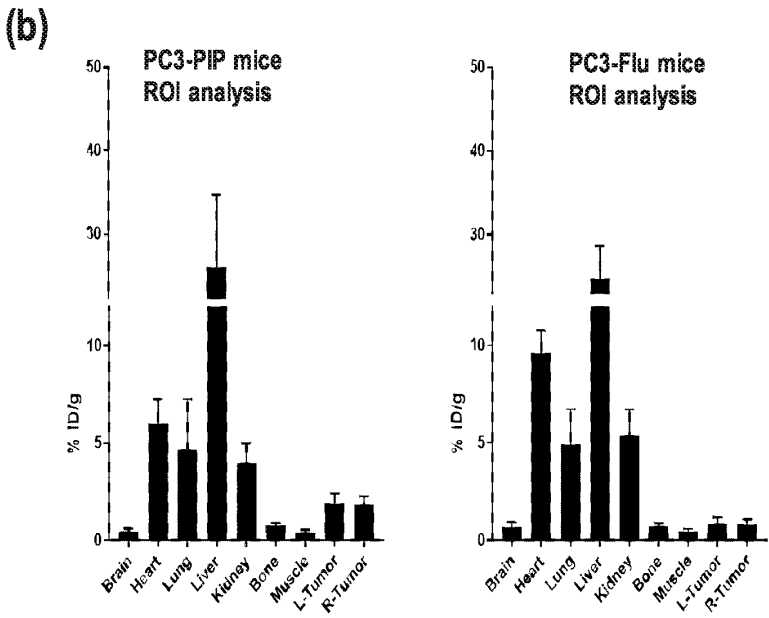


FIG. 14B

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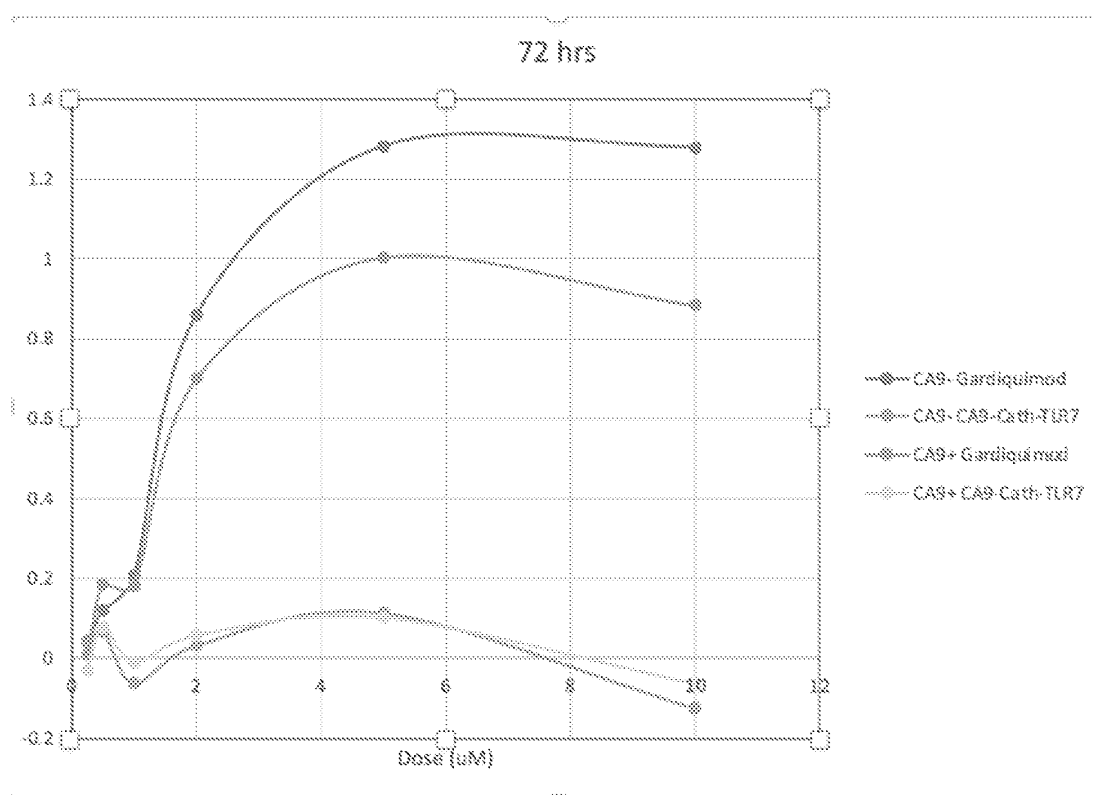
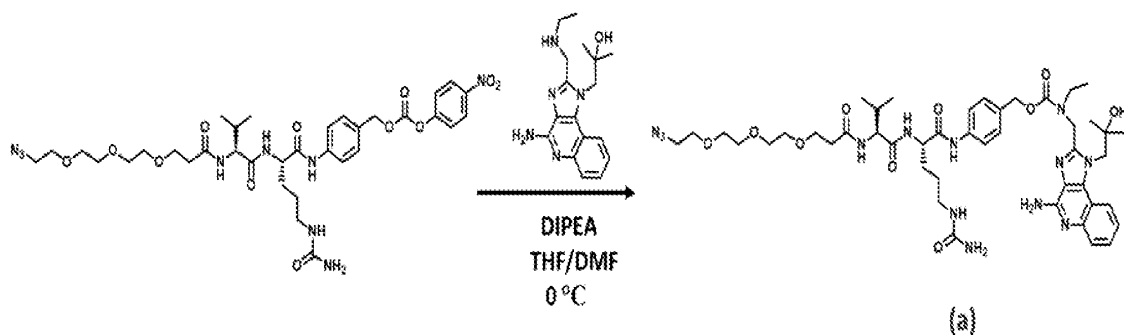


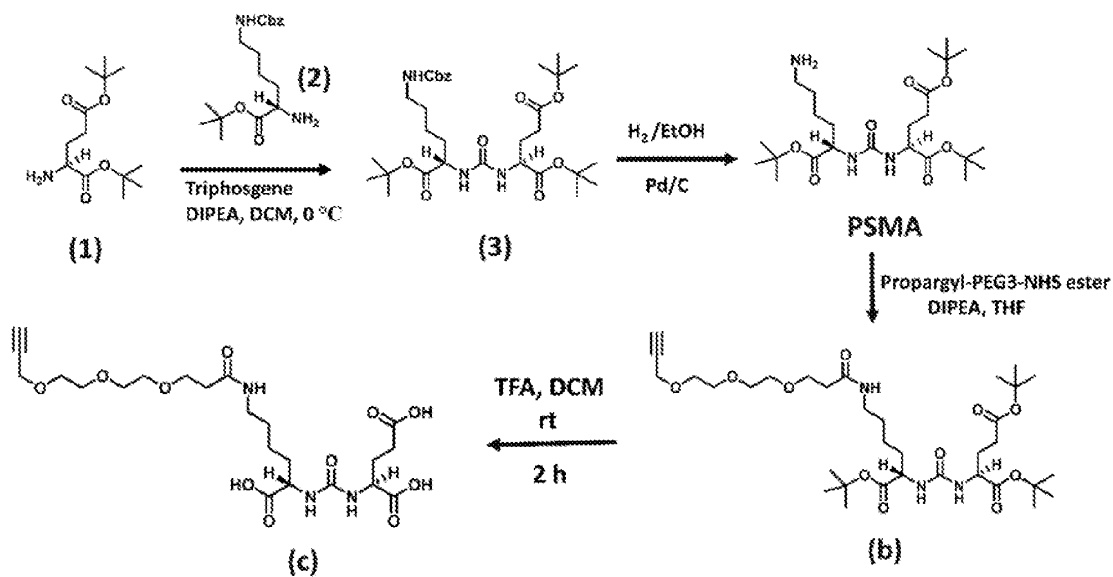
FIG. 15



Synthesis of proinflammatory prodrug PSMA-Cathepsin-Gardiquimode.

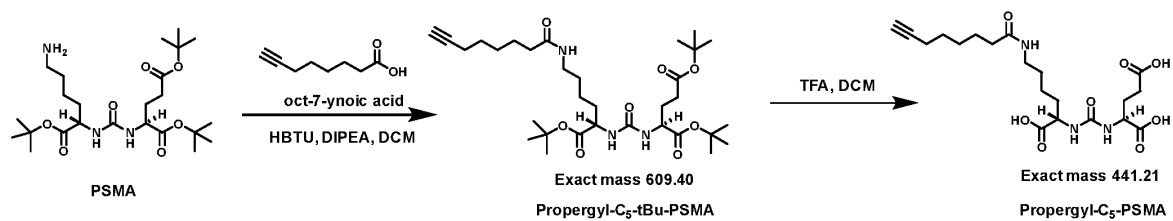
Fig. 16

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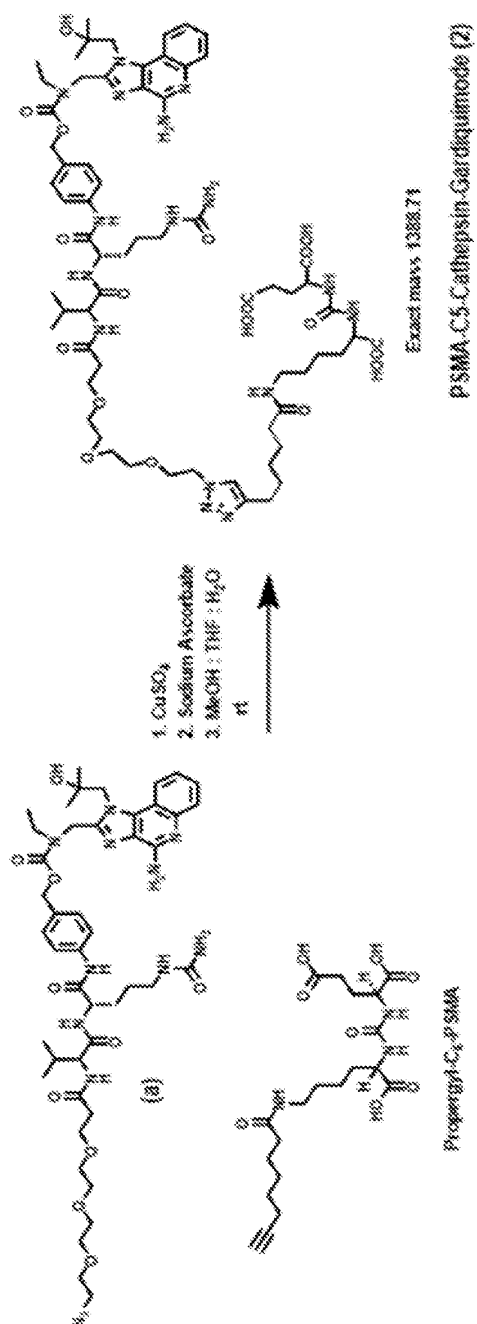
Synthesis of prodrug 3.

Fig. 16 (cont.)



Synthesis of Propargyl-C5-PSMA.

Fig. 17A



Synthesis of PSMA-C5-Cathepsin-Gardiquimode (2)

Fig. 17A (cont.)

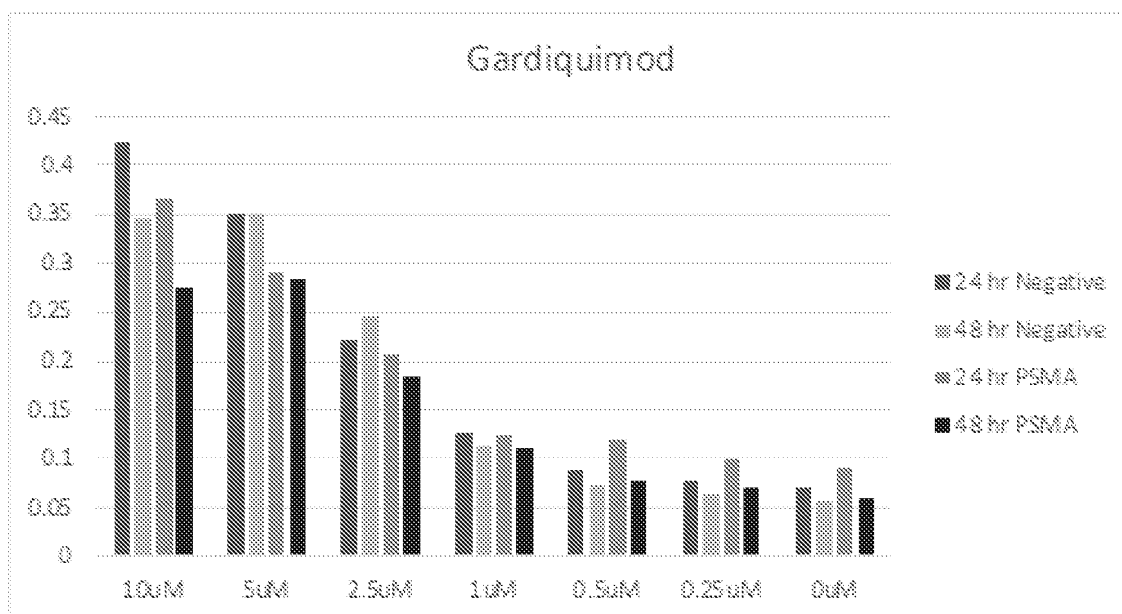
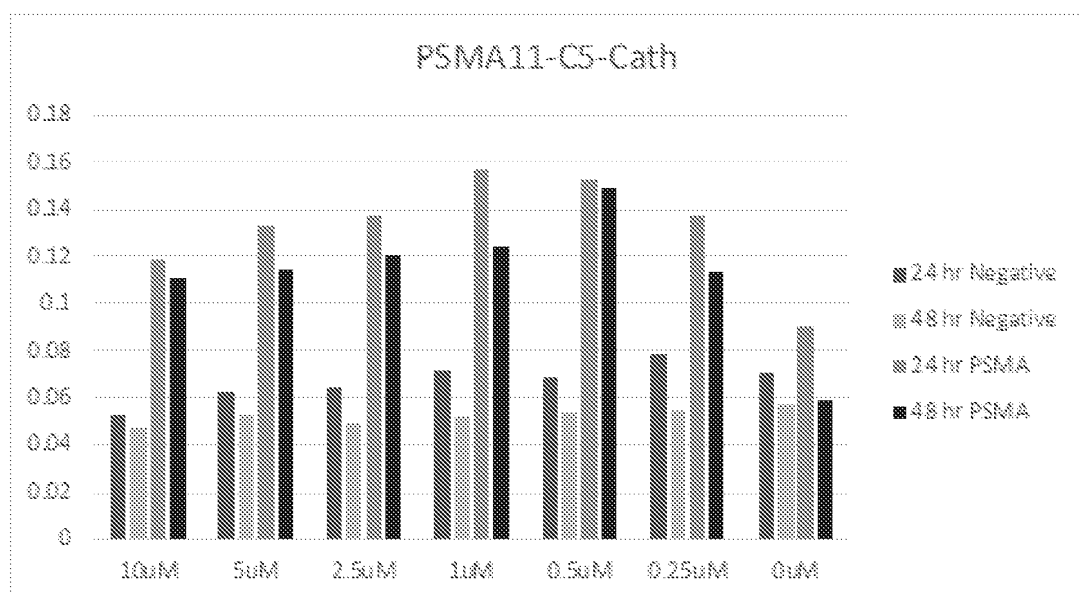


Fig: PSMA prodrugs induce TLR7 reporter activity in PSMA positive HEK-Blue cells but not in a PSMA negative reporter cell line (Left) when compared to various doses of free gardiquimod (Right).

Fig. 17B

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PSMA Prodrugs on TLR7 Reporter Cell Lines

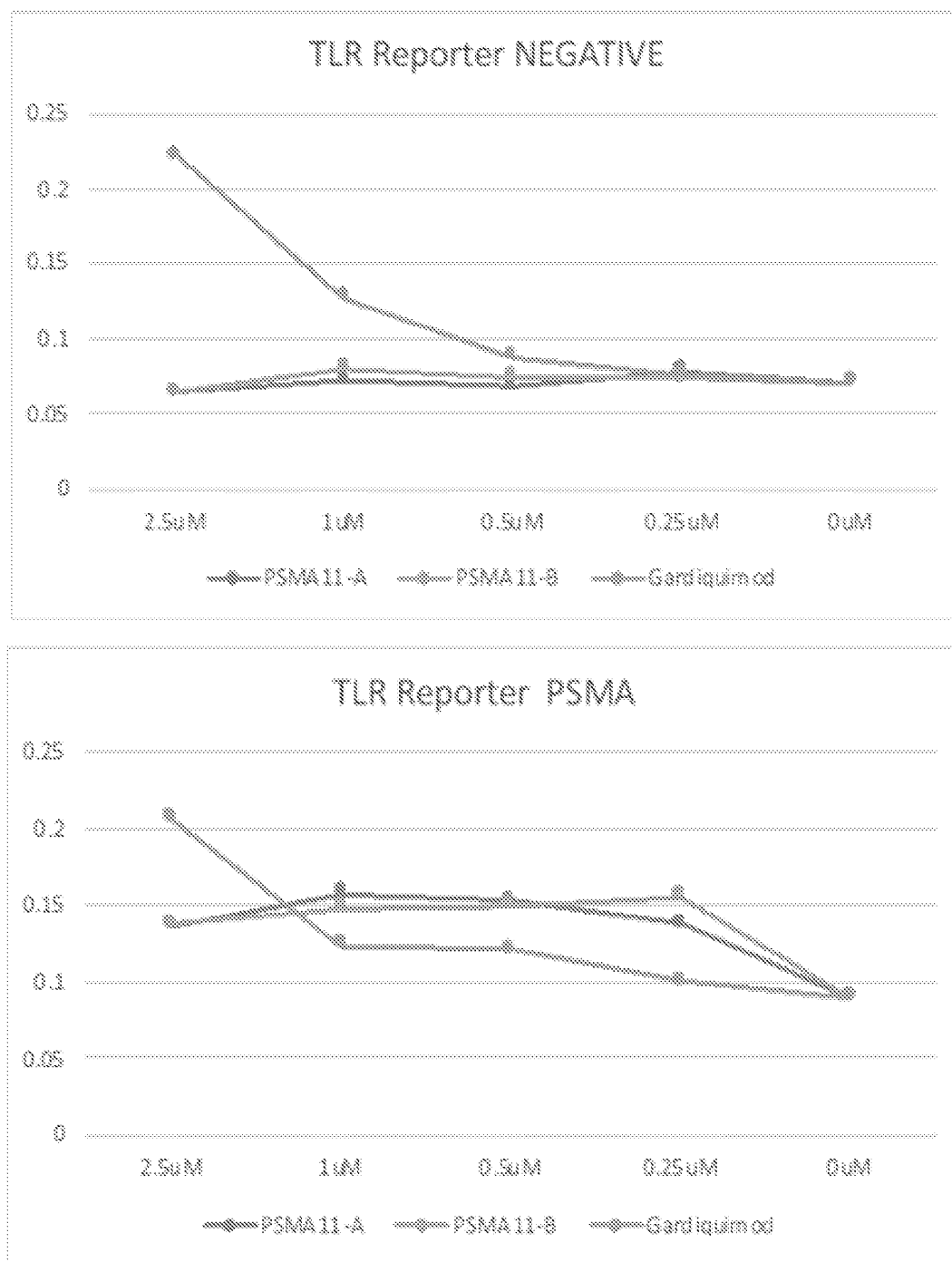
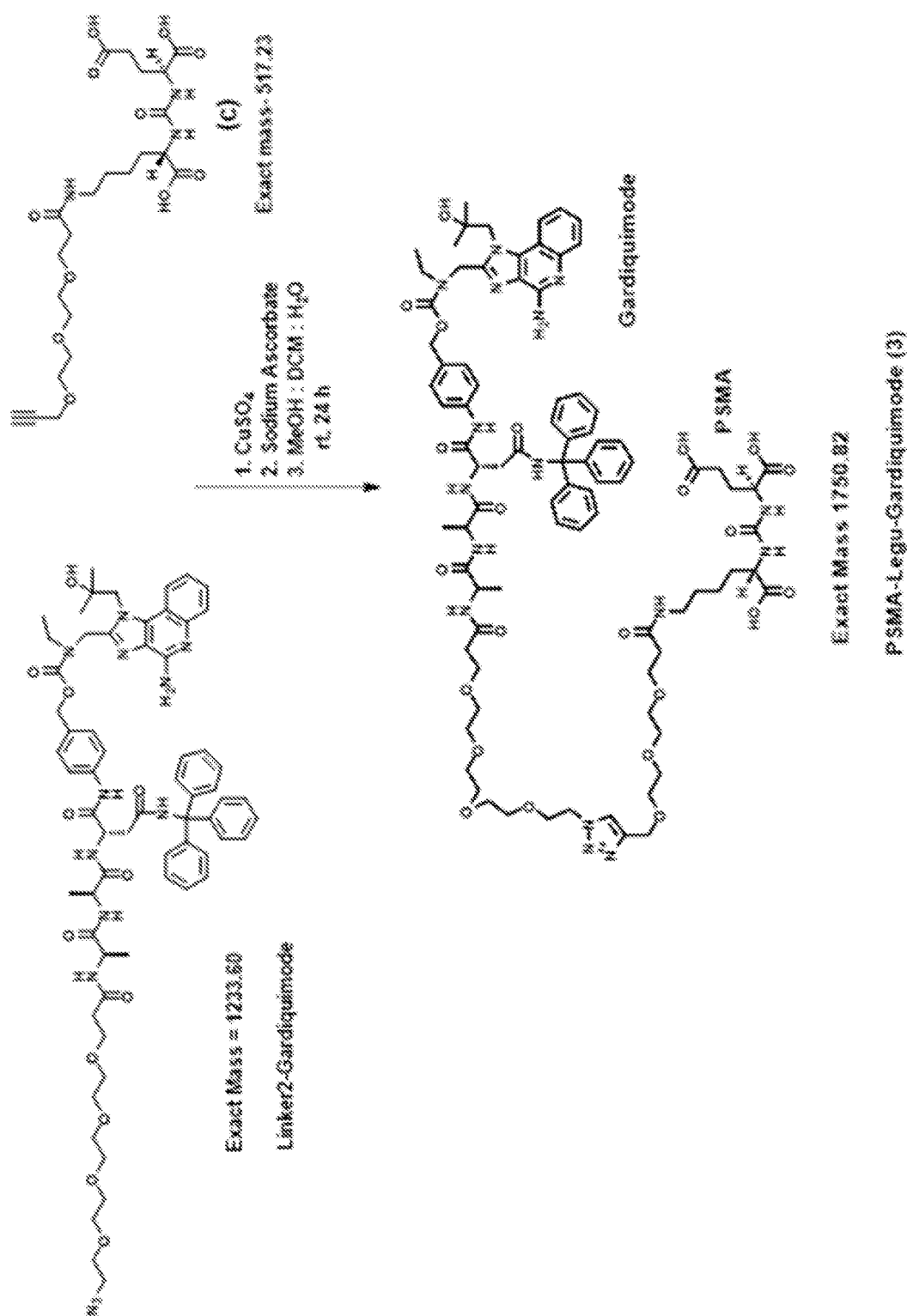


Fig: PSMA prodrugs induce TLR7 reporter activity in PSMA positive HEK-Blue cells (right) but not in a PSMA negative reporter cell line (left) when compared to various doses of free gardiquimod.

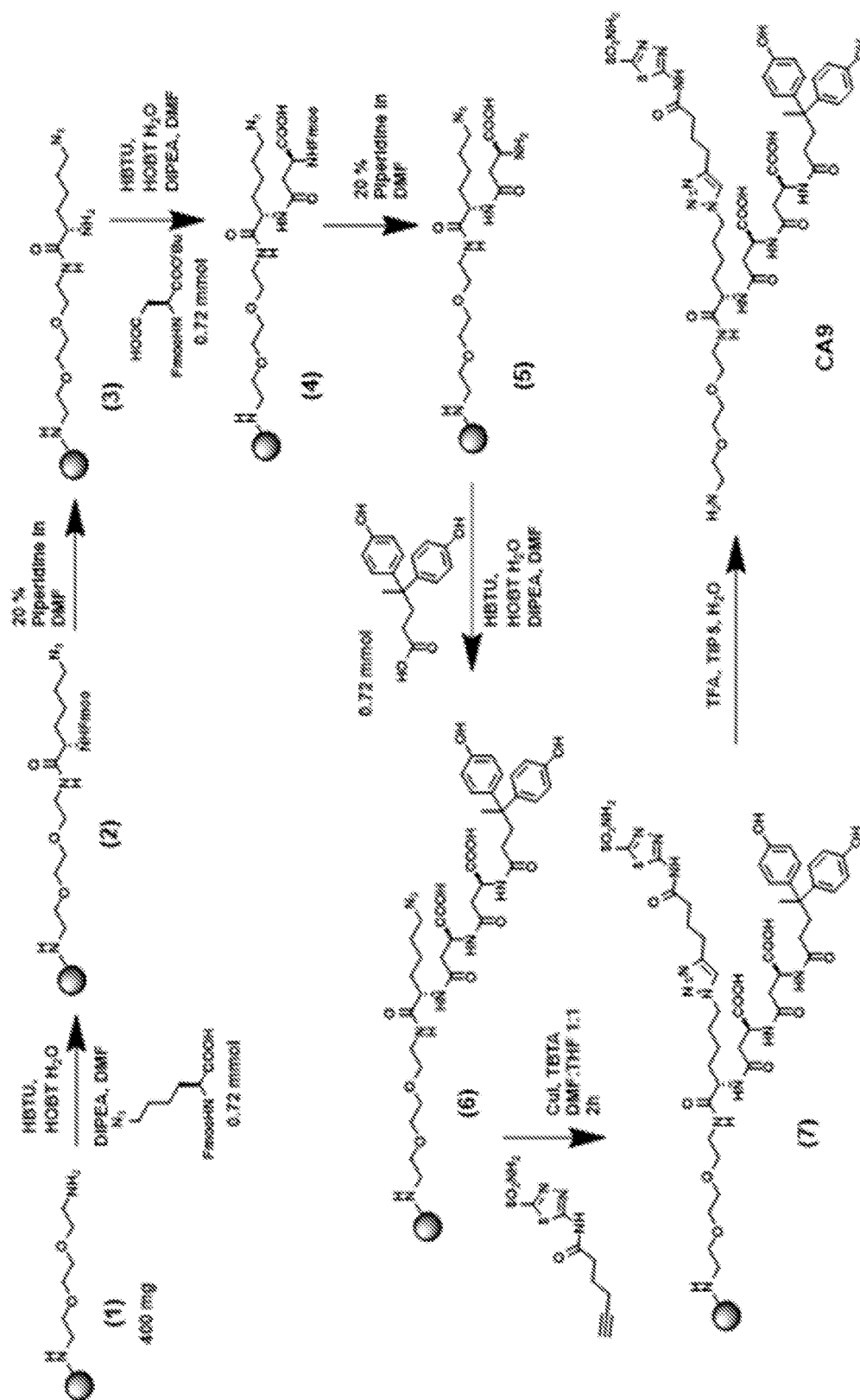
Fig. 17C

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Synthesis of PSMA-Legu-Gardiquimode (3).

Fig. 19



Synthesis of proinflammatory produg CA9-PEG3-TLR7.

Fig. 20

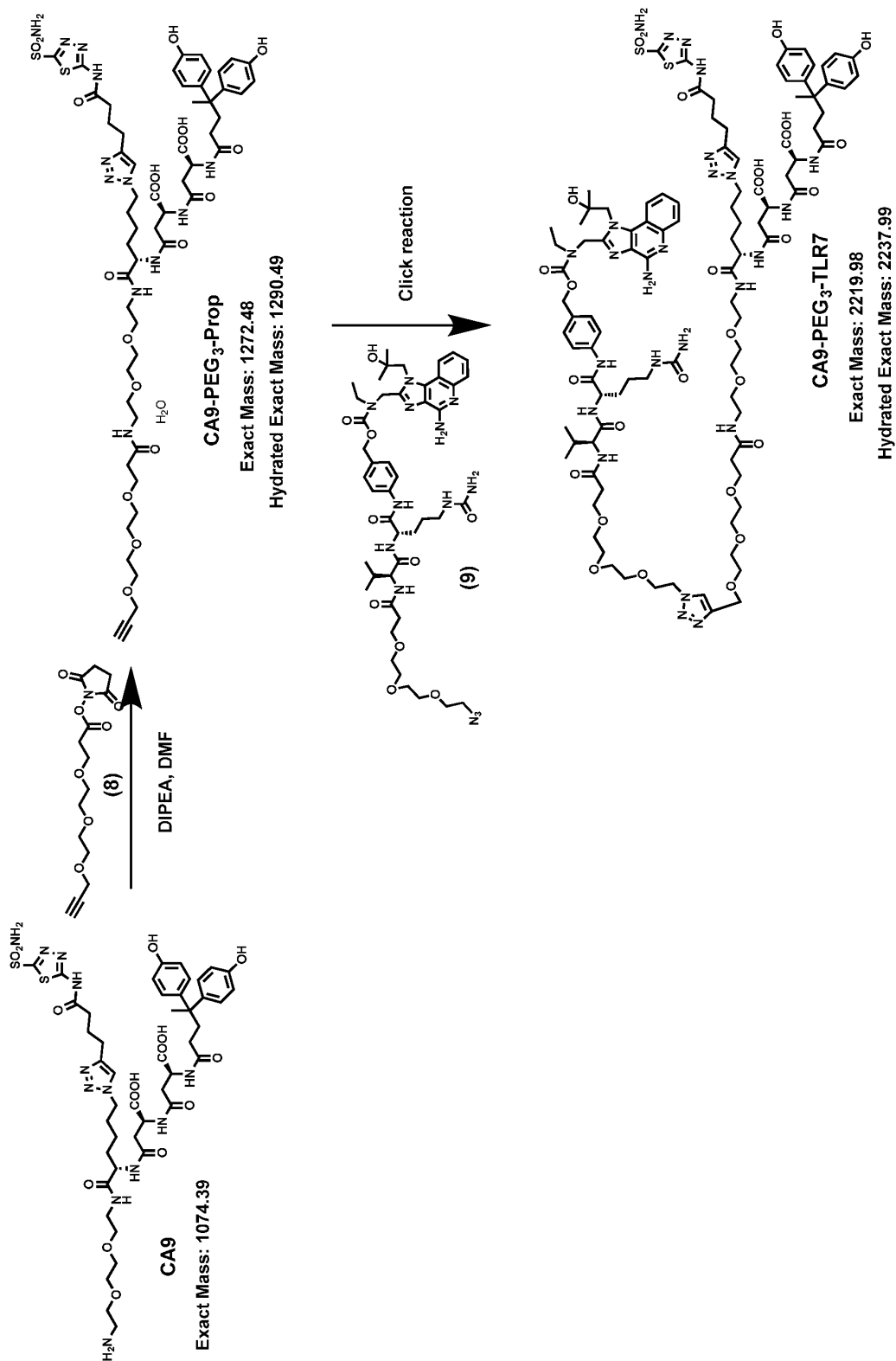


Fig. 20 (cont.)

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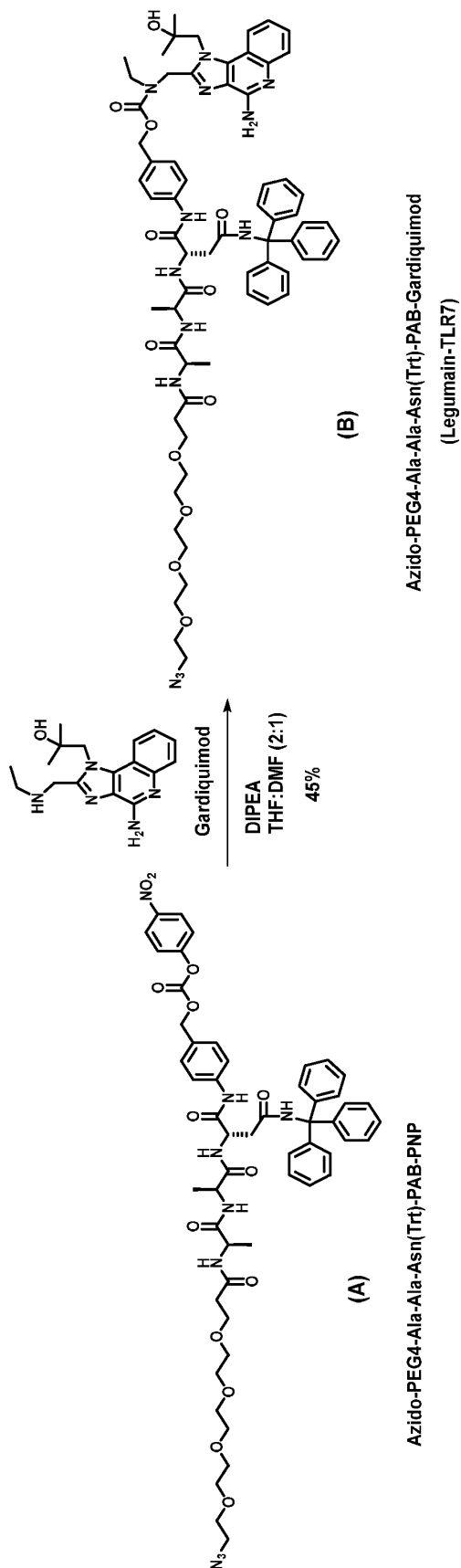
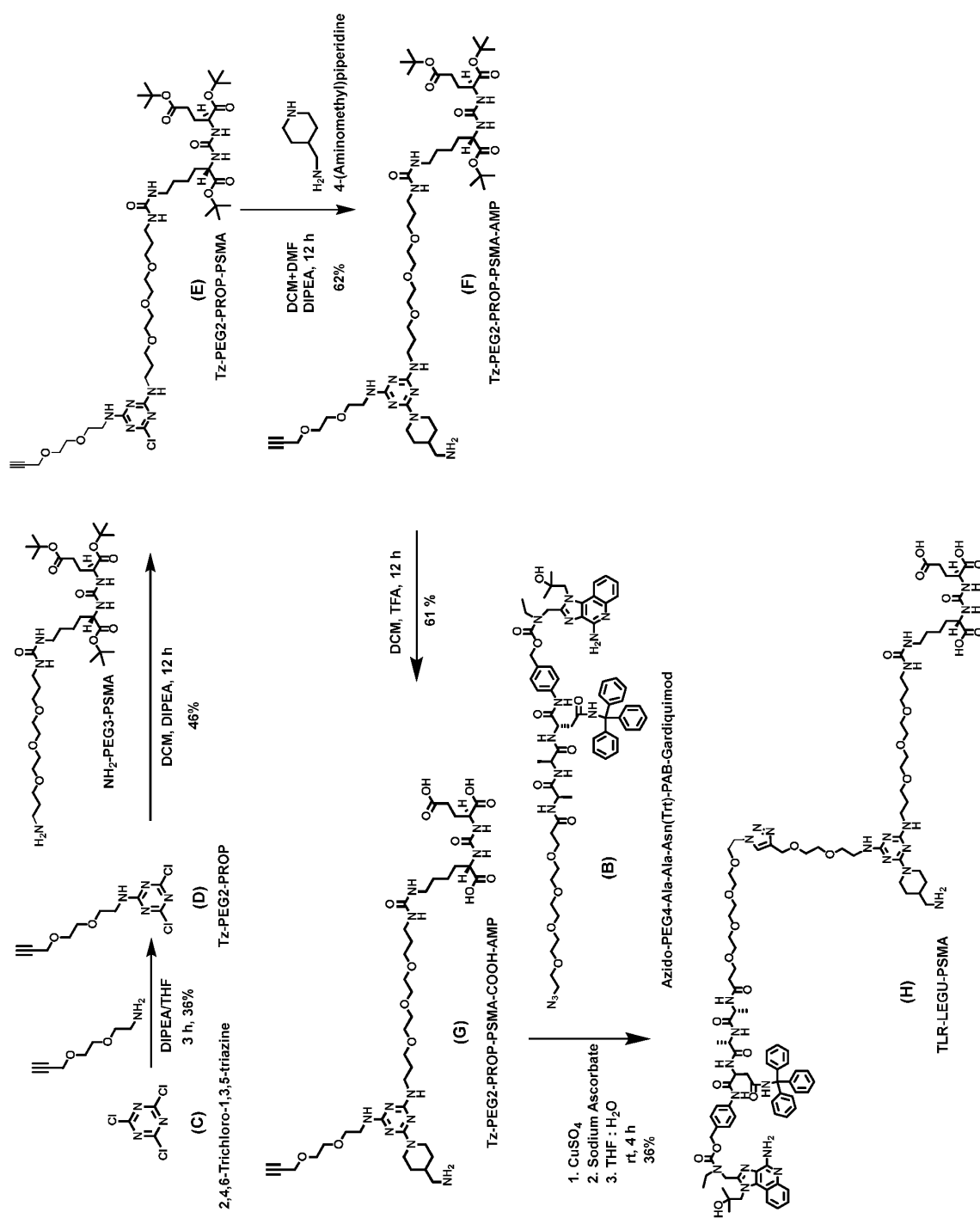
Scheme 1. Synthesis of Azido-PEG4-Ala-Ala-Asn(Trt)-PAB-Gardiquimod (prodrug **B**).

Fig. 21



Scheme 2. Synthesis of precursor molecule TLR-LEGU-PSMA.

Fig. 21 (cont.)