

Supporting Information

An improved admixture vaccine of fentanyl and heroin hapten-immunoconjugates: antinociceptive evaluation of fentanyl-contaminated heroin

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KEYWORDS: antinociception, heroin, fentanyl, vaccine, hapten

Table of Contents

Figure S1. MALDI-TOF MS spectrum of unconjugated BSA.....	S3
Figure S2. MS-ESI(+) spectrum of unconjugated BSA	S4
Figure S3. MALDI-TOF MS spectrum of Fent-BSA.....	S5
Figure S4. MALDI-TOF MS spectrum of Her-BSA	S6
Figure S5. Percent change in body weight over time	S7
Figure S6. Average diameter of injection site reactions	S7
Figure S7. Heroin antinociception dose-response curves	S8
Figure S8. Fentanyl antinociception dose-response curves	S8
Figure S9. 10% Fentanyl to heroin antinociception dose-response curves	S9
Figure S10. Serum titer response to TT by ELISA.....	S9

Figure S1. MALDI-TOF MS spectrum of unconjugated BSA

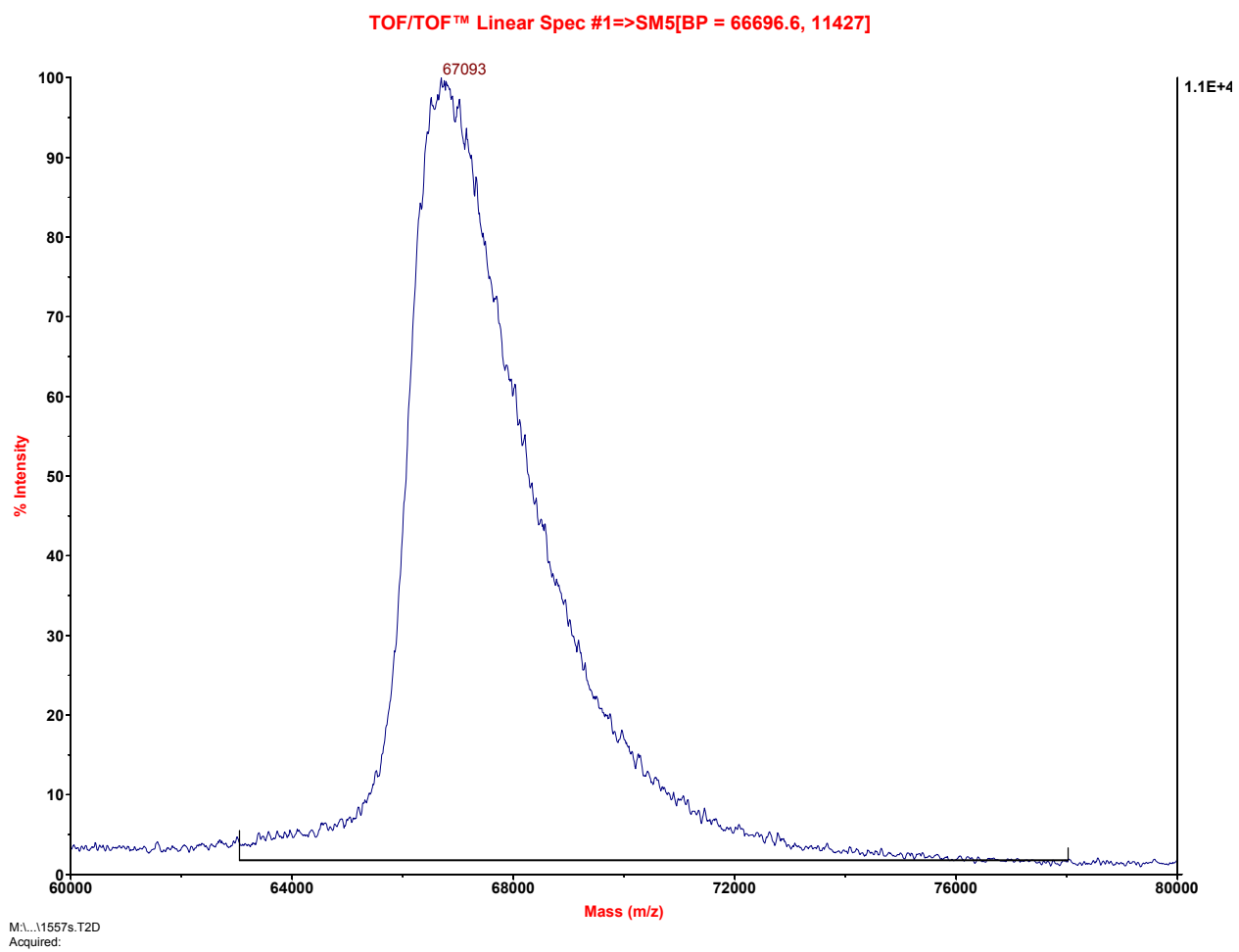


Figure S2. MS-ESI(+) spectrum of unconjugated BSA

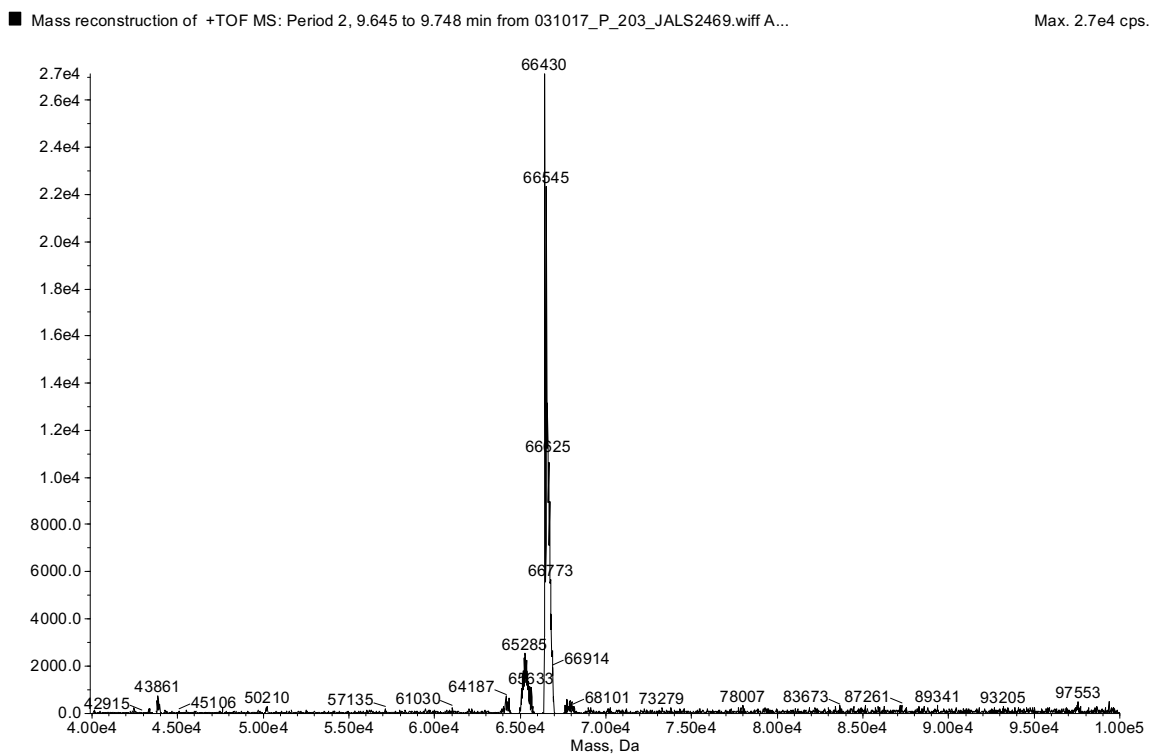


Figure S3. MALDI-TOF MS spectrum of Fent-BSA

Applied Biosystems MDS Analytical Technologies TOF/TOF™ Series Explorer™ 2003

TOF/TOF™ Linear Spec #1=>SM5[BP = 74915.0, 11205]

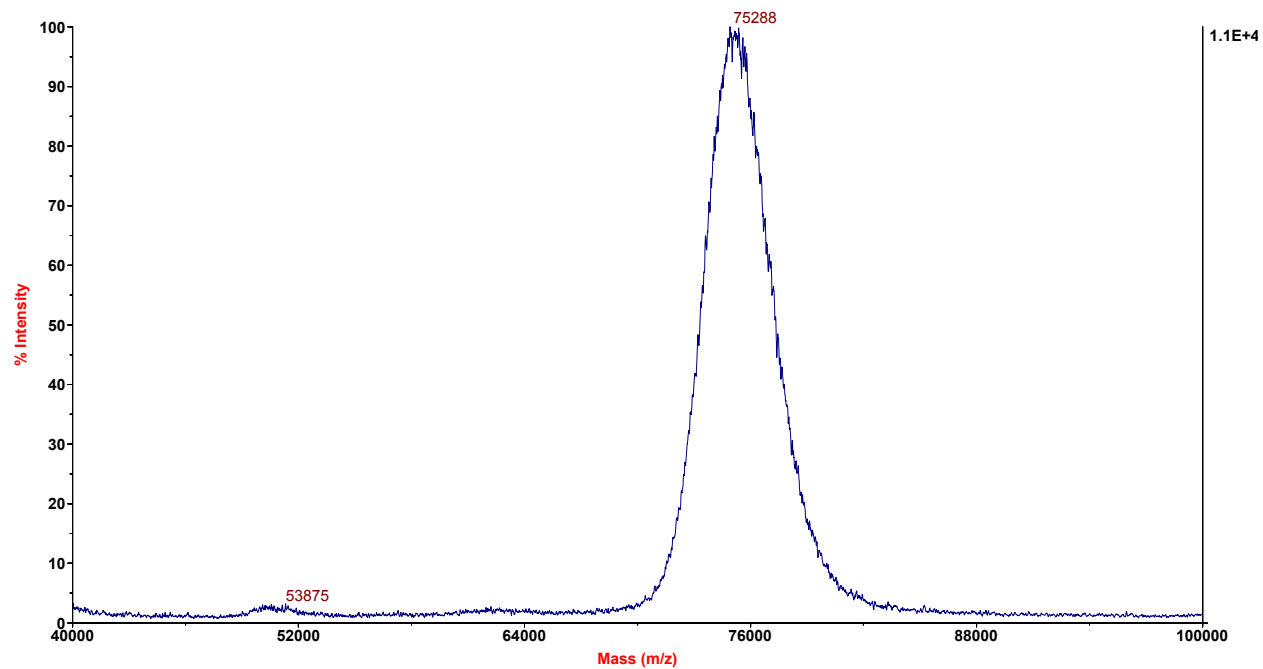
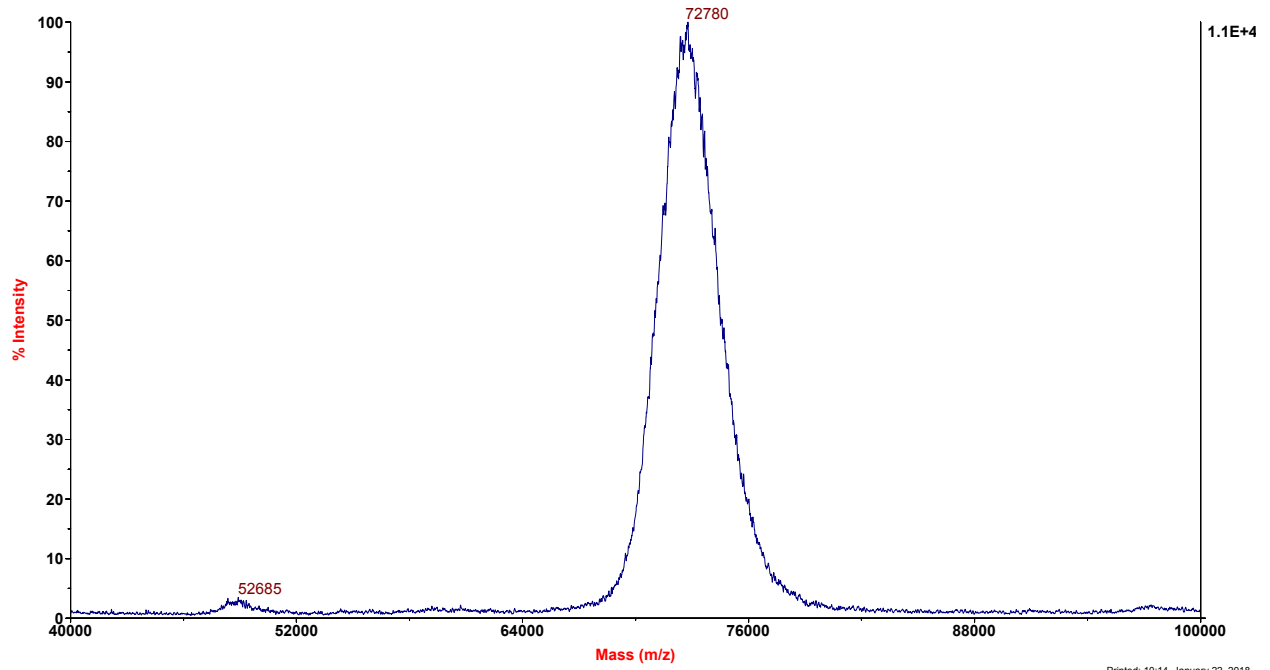


Figure S4. MALDI-TOF MS spectrum of Her-BSA

Applied Biosystems MDS Analytical Technologies TOF/TOF™ Series Explorer™ 2003

TOF/TOF™ Linear Spec #1=>SM5[BP = 72785.0, 11225]



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Figure S5. Percent change in body weight over time
Points represent means \pm SEM.

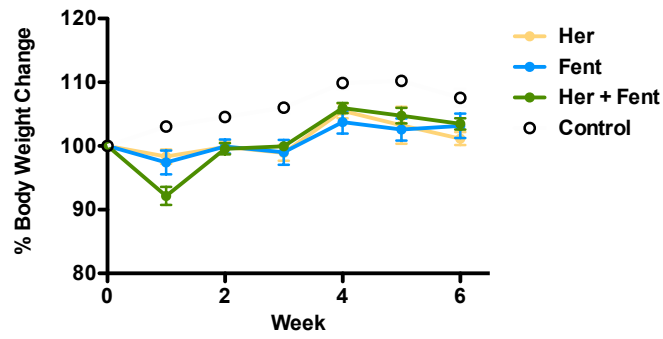


Figure S6. Average diameter of injection site reactions
Horizontal lines represent means \pm SEM.

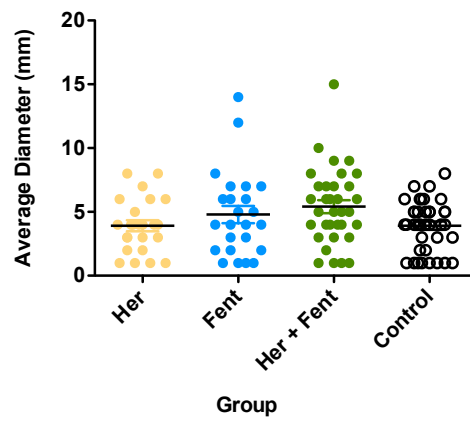


Figure S7. Heroin antinociception dose-response curves

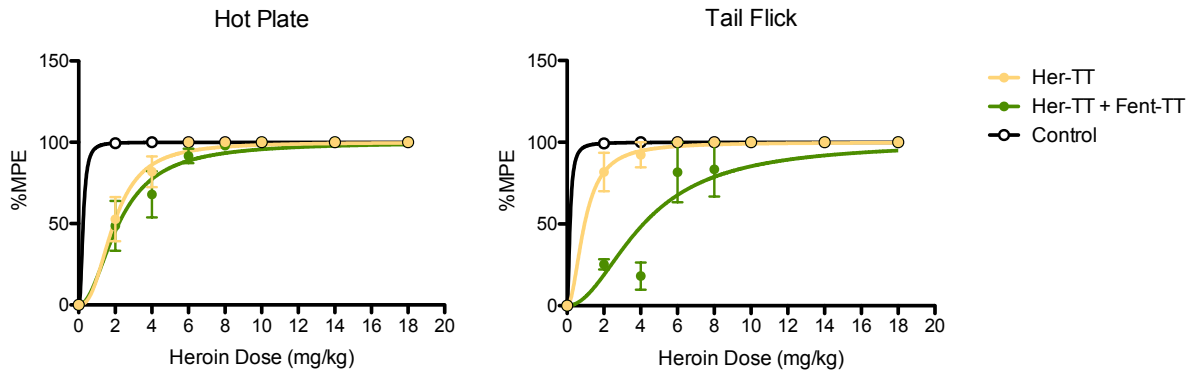


Figure S8. Fentanyl antinociception dose-response curves

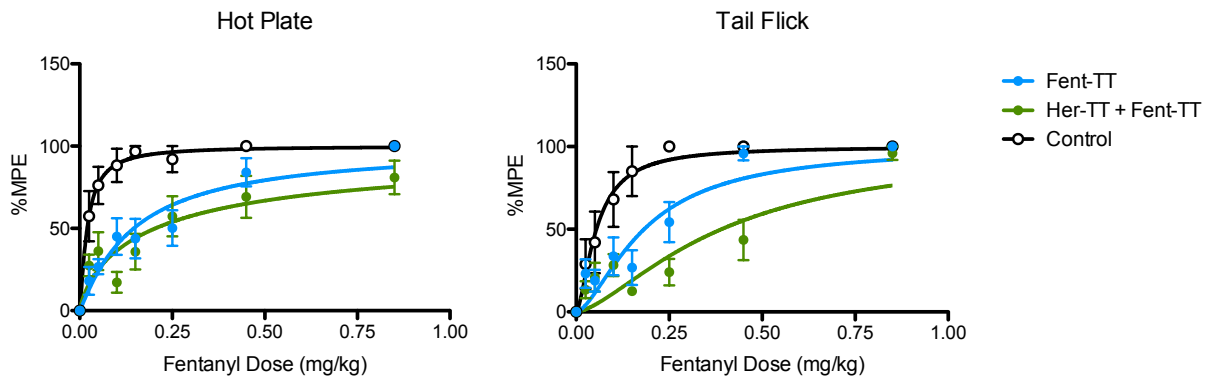


Figure S9. 10% Fentanyl to heroin antinociception dose-response curves

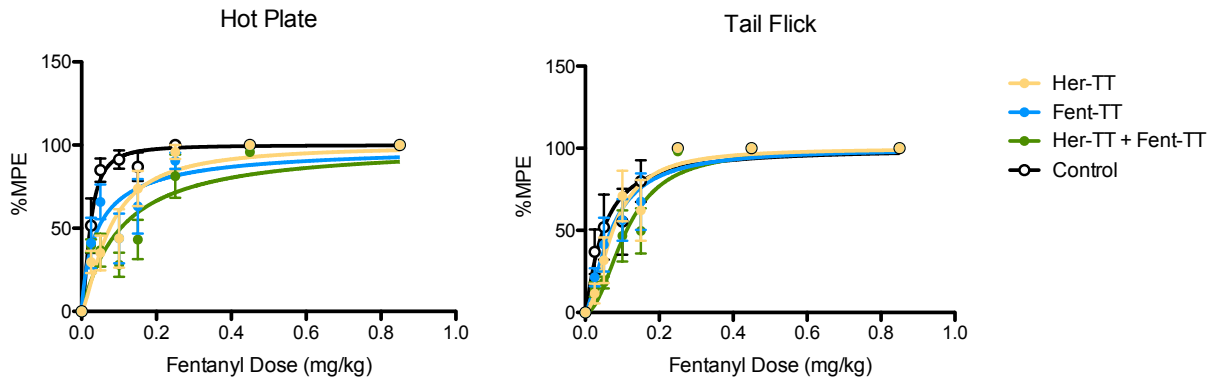
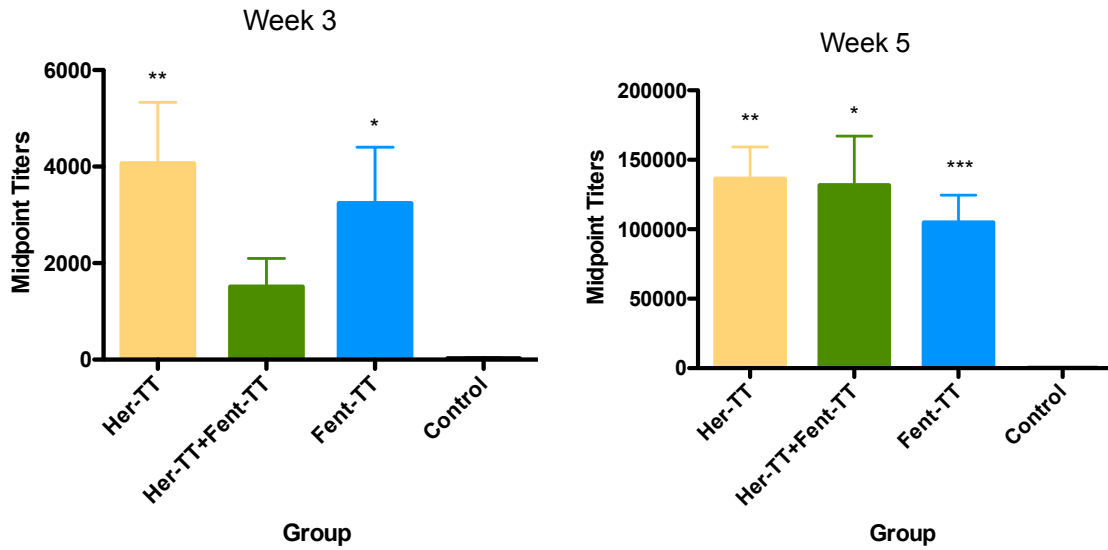


Figure S10. Serum titer response to TT by ELISA



* $P \leq 0.05$; ** $P \leq 0.01$; *** $P \leq 0.001$; significance versus control by Tukey multiple comparison test