

Article

# Pulmonary Safety Profile of Esc Peptides and Esc-Peptide-Loaded Poly(lactide-co-glycolide) Nanoparticles: A Promising Therapeutic Approach for Local Treatment of Lung Infectious Diseases

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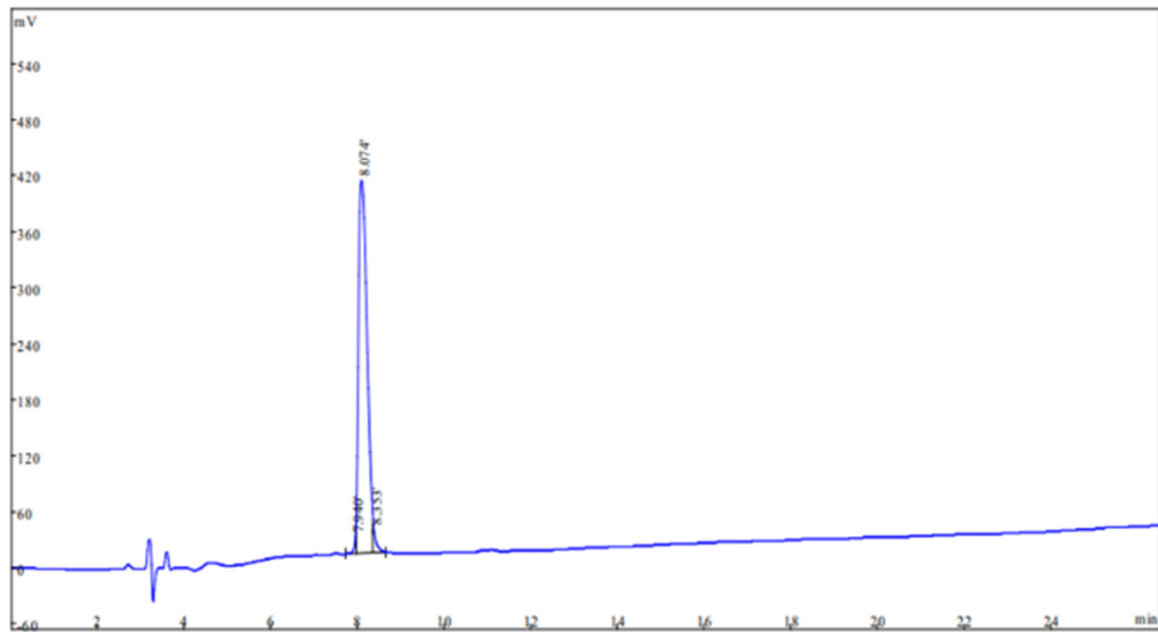
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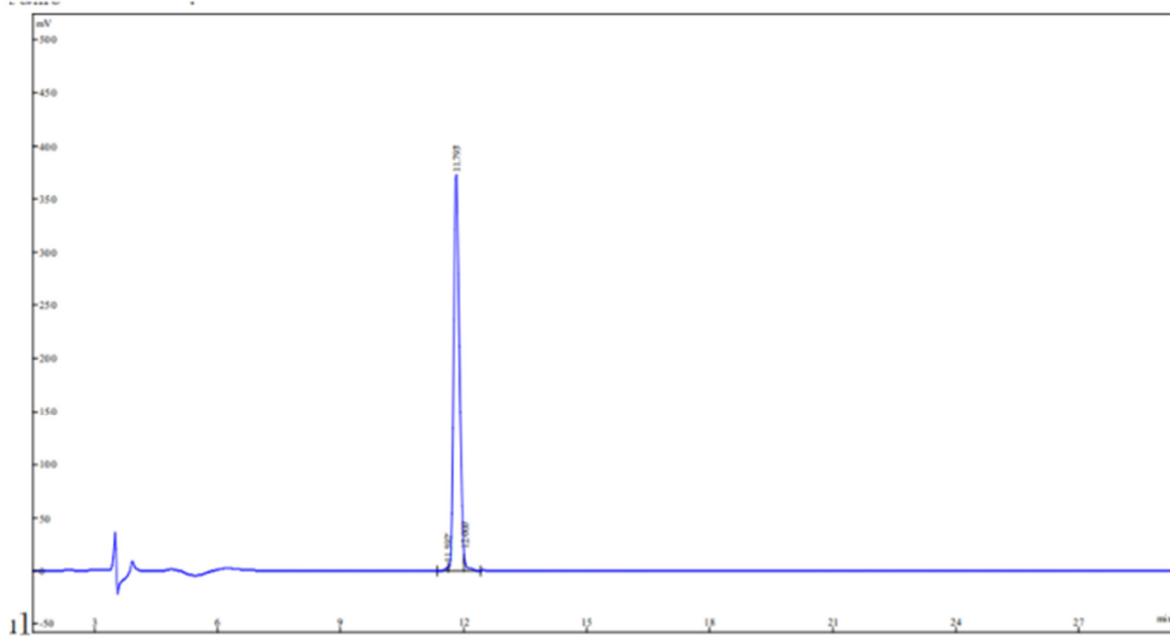
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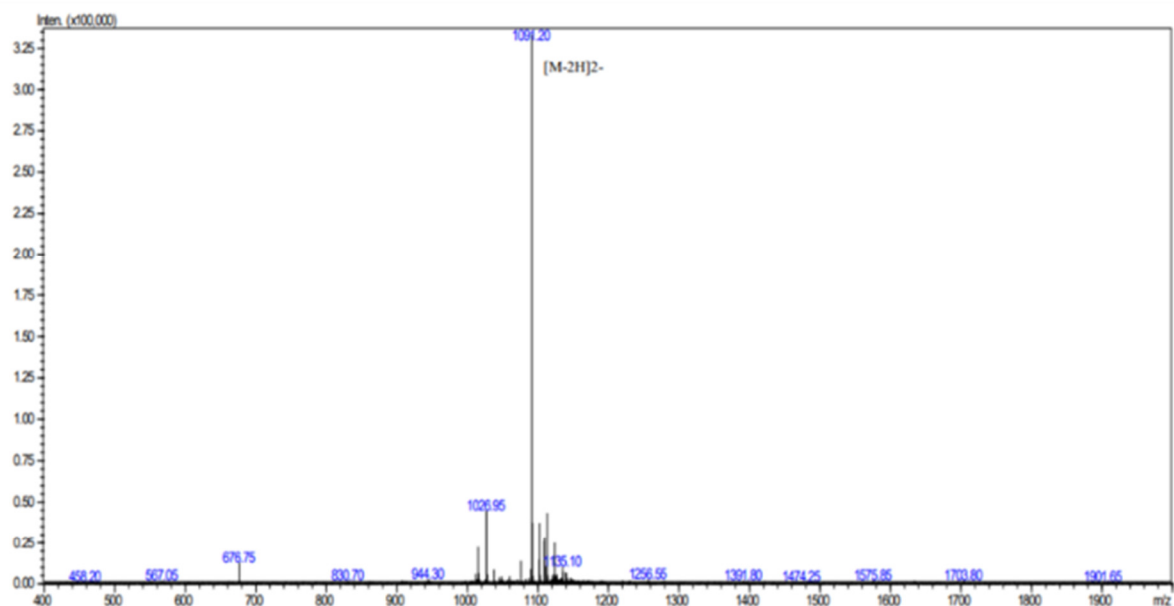
## Esc(1-21)



## Esc(1-21)-1c



## Esc(1-21)



## Esc(1-21)-1c

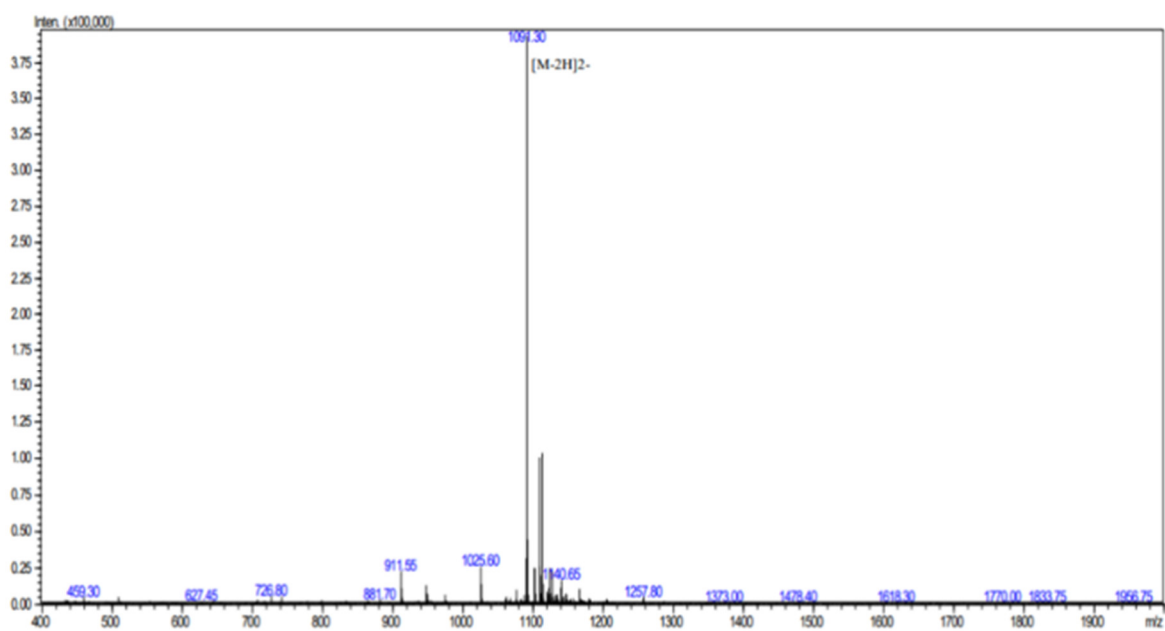
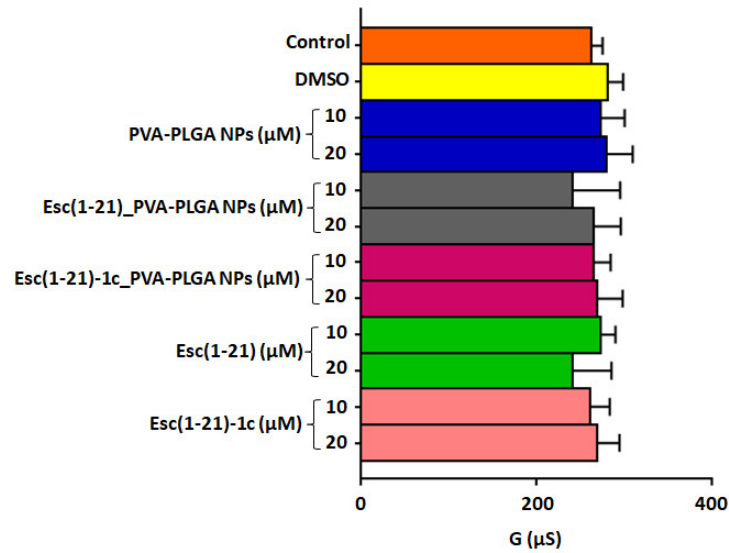
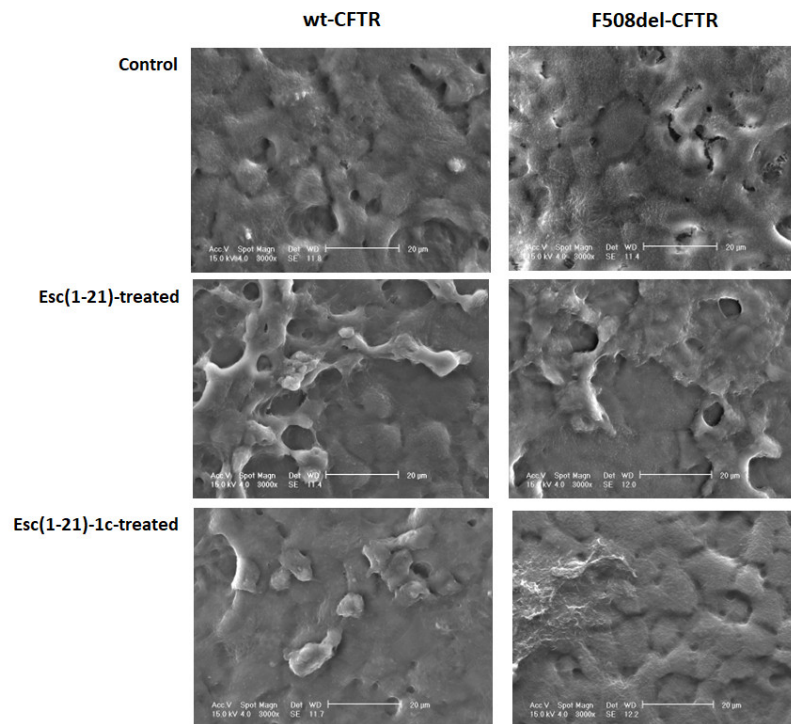


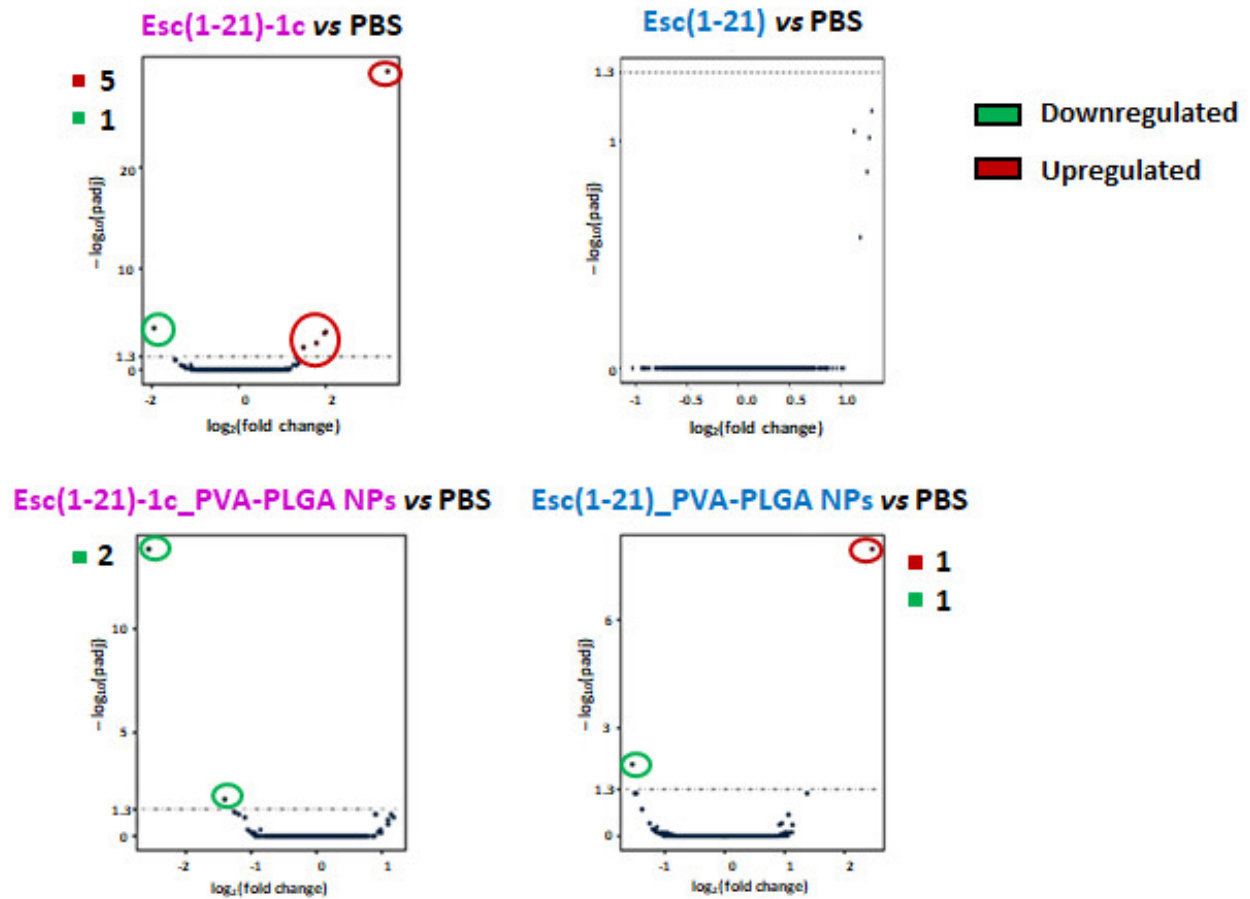
Figure S1. HPLC and mass spectra of Esc peptides.



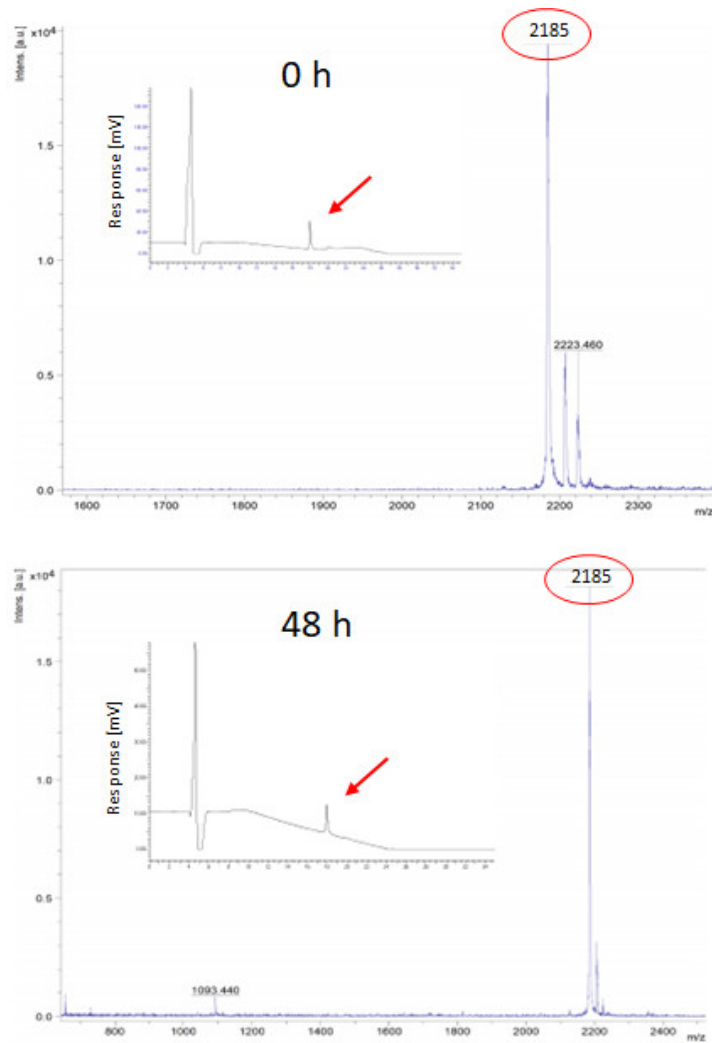
**Figure S2.** Effect of bare or Esc peptide-loaded PVA-PLGA NPs on F508del-FRT epithelium integrity after 24 h incubation. Untreated cells (control) and peptides in the soluble free form were also reported for comparison. Data are expressed as mean  $\pm$  S.E.M. from three independent experiments. No statistical difference was found.



**Figure S3.** SEM images of bronchial epithelia. Wild type (wt) and F508del-bronchial epithelium were treated for 5 h with 20  $\mu$ M Esc peptides and compared to untreated samples. Scale bar, 20  $\mu$ m.



**Figure S4.** Effect of free or encapsulated peptides on lung gene expression. Volcano plots show differentially expressed genes at a threshold over 2-fold changes with  $p$  value  $< 0.05$  from three biological replicates.



**Figure S5.** Mass spectra of Esc(1-21)-1c after 48 h incubation with mouse BAL. The peak of molecular mass of 2185 corresponding to the full-length peptide is marked in red. The arrows indicate the peak of 2185 molecular mass found for Esc(1-21)-1c at time 0 and after 48 h incubation with BAL.