

## SUPPLEMENTARY INFORMATION

### **Bronchial epithelium repair by Esculentin-1a-derived antimicrobial peptides: involvement of metalloproteinase-9 and interleukin-8, and evaluation of peptides' immunogenicity**

Floriana Cappiello<sup>1</sup>, Danilo Ranieri<sup>2</sup>, Veronica Carnicelli<sup>3</sup>, Bruno Casciaro<sup>4</sup>, Han-Tang Chen<sup>5</sup>,  
Loretta Ferrera<sup>6</sup>, Y. Peter Di<sup>5</sup>, Maria Luisa Mangoni<sup>1\*</sup>

<sup>1</sup> Laboratory affiliated to Pasteur Italia-Fondazione Cenci Bolognetti, Department of Biochemical Sciences, Sapienza University of Rome, Italy; <sup>2</sup> Department of Clinical and Molecular Medicine, Sapienza University of Rome, Rome, Italy; <sup>3</sup> Department of Biotechnological and Applied Clinical Sciences, University of L'Aquila, L'Aquila, Italy; <sup>4</sup> Center for Life Nano Science, Istituto Italiano di Tecnologia, Rome, Italy; <sup>5</sup> Department of Environmental and Occupational Health, University of Pittsburgh, Pittsburgh, USA; <sup>6</sup> U.O.C. Genetica Medica, Giannina Gaslini Institute, Genoa, Italy.

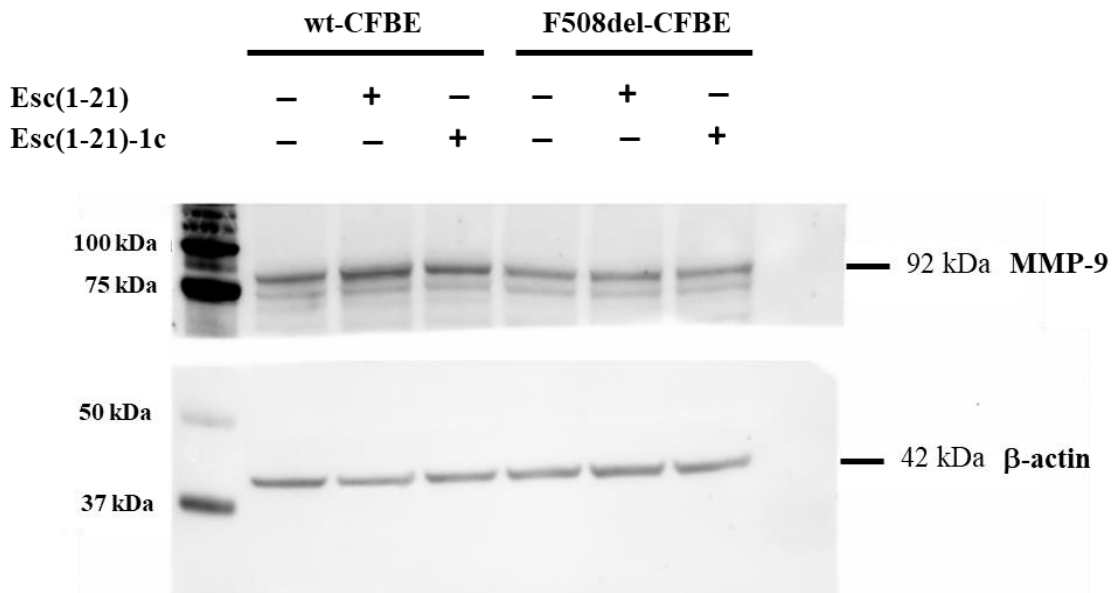
\*To whom correspondence should be sent:

Maria Luisa Mangoni  
Department of Biochemical Sciences,  
Sapienza University of Rome  
Via degli Apuli, 9;00185, Rome  
Tel: +39 06 49917693. Email: [marialuisa.mangoni@uniroma1.it](mailto:marialuisa.mangoni@uniroma1.it)  
ORCID: 0000-0002-5991-5868

**Supplementary Table S1.** Quantitative analysis of cell morphological changes was carried out after 20 h treatment of wt-CFBE and F508del-CFBE with 10  $\mu$ M and 1  $\mu$ M of Esc(1-21) and Esc(1-21)-1c, respectively, compared to the untreated Ctrl samples. Cells with cytoplasmic protrusions were counted from 10 different fields randomly taken from three different experiments (~ 200 total cells). Results are expressed as percentages mean  $\pm$  SEM of elongated cells with respect to the total number.

<b>Percentages of elongated cells</b>			
<b>Cell type</b>	<b>Ctrl</b>	<b>Esc(1-21)- treated cells</b>	<b>Esc(1-21)-1c- treated cells</b>
wt-CFBE	12.14 $\pm$ 1.64	60.59 $\pm$ 1.73	71.34 $\pm$ 4.40
F508del-CFBE	15.05 $\pm$ 1.90	86.04 $\pm$ 1.50	80.38 $\pm$ 1.92

Significance levels between peptide-treated samples versus Ctrl is defined as *P* value of <0.0001 (\*\*\*\*).



### Supplementary Figure S1

Western blots showing the expression of MMP-9 and  $\beta$ -actin in untreated (-) samples or in cells treated with Esc(1-21)/Esc(1-21)-1c, at 10  $\mu$ M/1  $\mu$ M, for 12 h. Molecular weights of MMP-9 and  $\beta$ -actin are also indicated. Samples showed in the gels derive from the same experiment and were processed in parallel. **This represents full-length images of cropped scans of Figure 5**