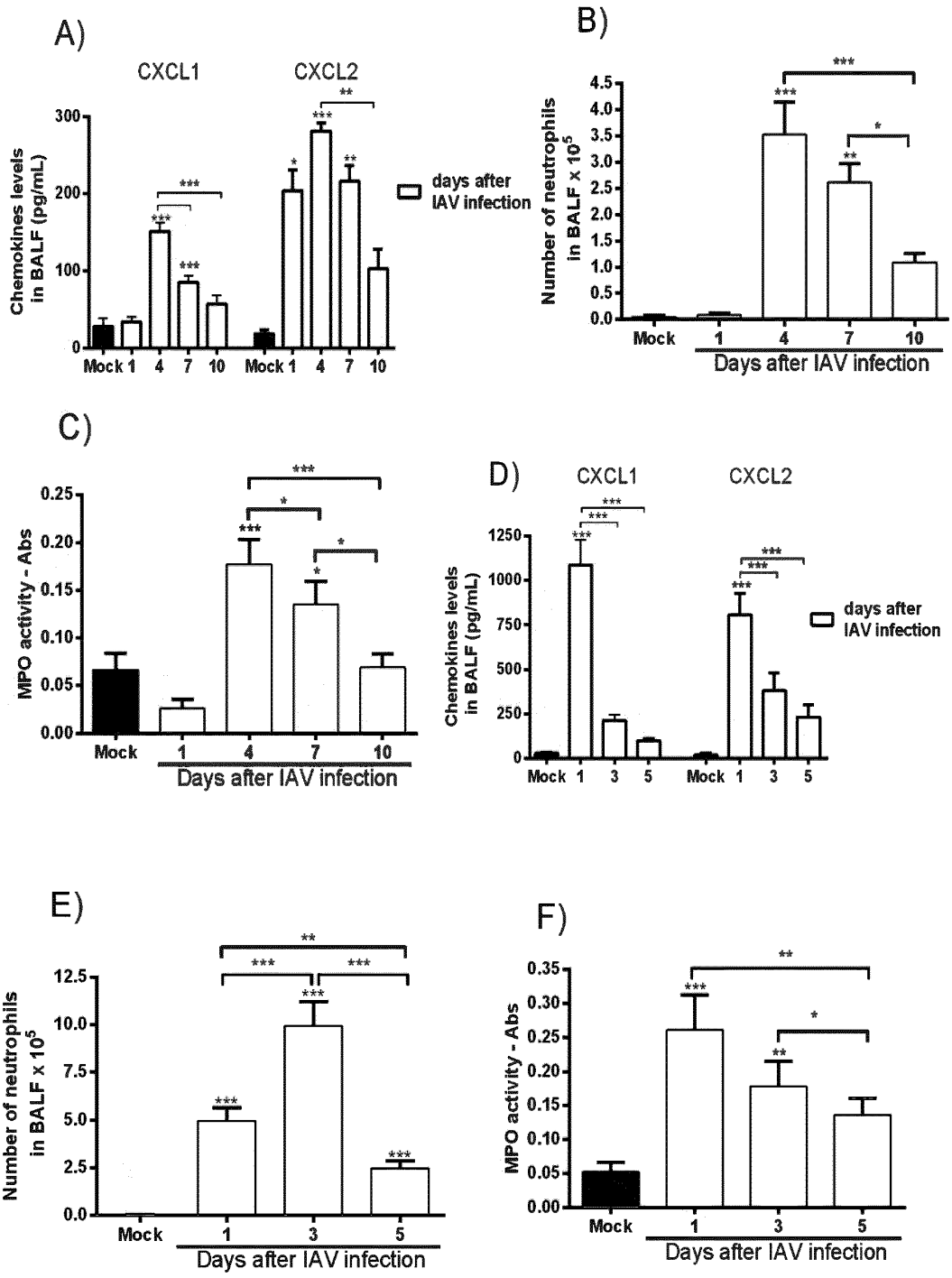

A)
CXCL1
CXCL2
Chemokines levels in BALF (pg/mL)
days after IAV infection
Mock 1 4 7 10 Mock 1 4 7 10
B)
Number of neutrophils in BALF x 10^5
Mock 1 4 7 10
Days after IAV infection
C)
MPO activity - Abs
Mock 1 4 7 10
Days after IAV infection
D)
CXCL1
CXCL2
Chemokines levels in BALF (pg/mL)
days after IAV infection
Mock 1 3 5 Mock 1 3 5
E)
Number of neutrophils in BALF x 10^5
Mock 1 3 5
Days after IAV infection
F)
MPO activity - Abs
Mock 1 3 5
Days after IAV infection

Figure 1

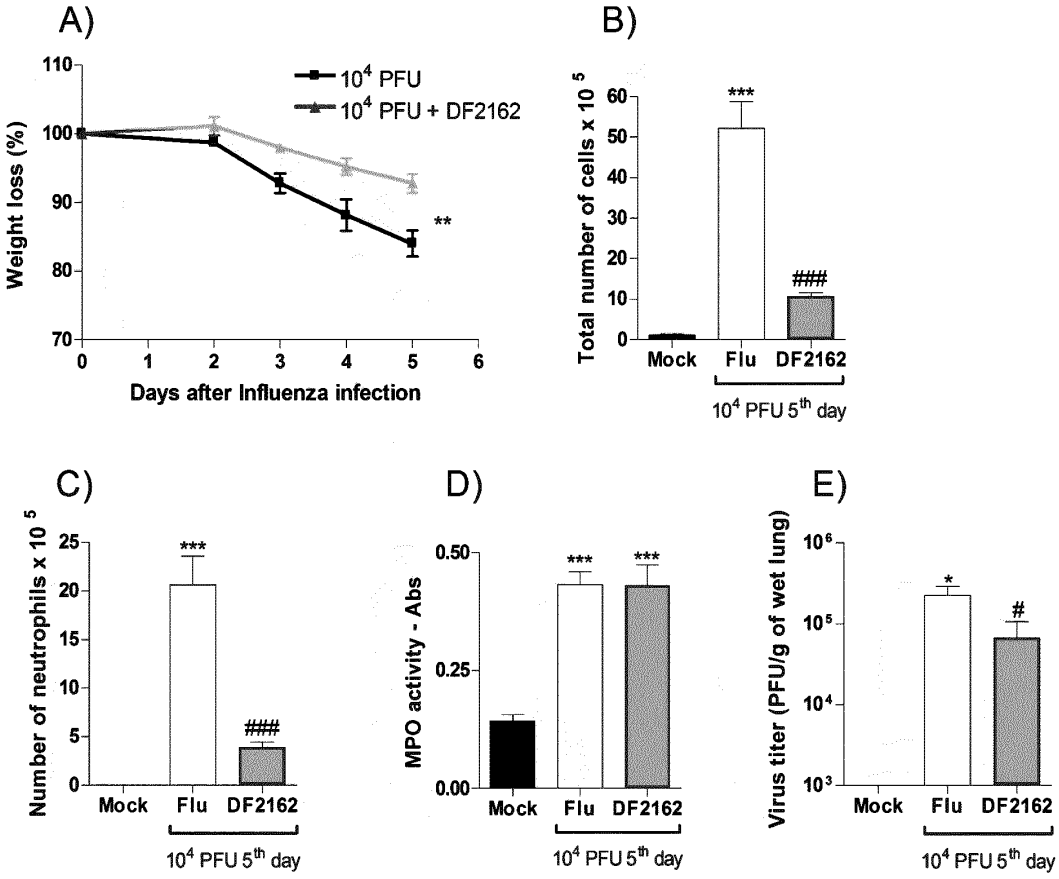

A)
Weight loss (%)
110
100
90
80
70
0 1 2 3 4 5 6
Days after Influenza infection
10^4 PFU
10^4 PFU + DF2162
**
B)
Total number of cells x 10^5
60
50
40
30
20
10
0
***
###
Mock
Flu
DF2162
10^4 PFU 5th day
C)
Number of neutrophils x 10^5
25
20
15
10
5
0
***
###
Mock
Flu
DF2162
10^4 PFU 5th day
D)
MPO activity - Abs
0.50
0.25
0.00
***
***
Mock
Flu
DF2162
10^4 PFU 5th day
E)
Virus titer (PFU/g of wet lung)
10^6
10^5
10^4
10^3
*
#
Mock
Flu
DF2162
10^4 PFU 5th day

Figure 2

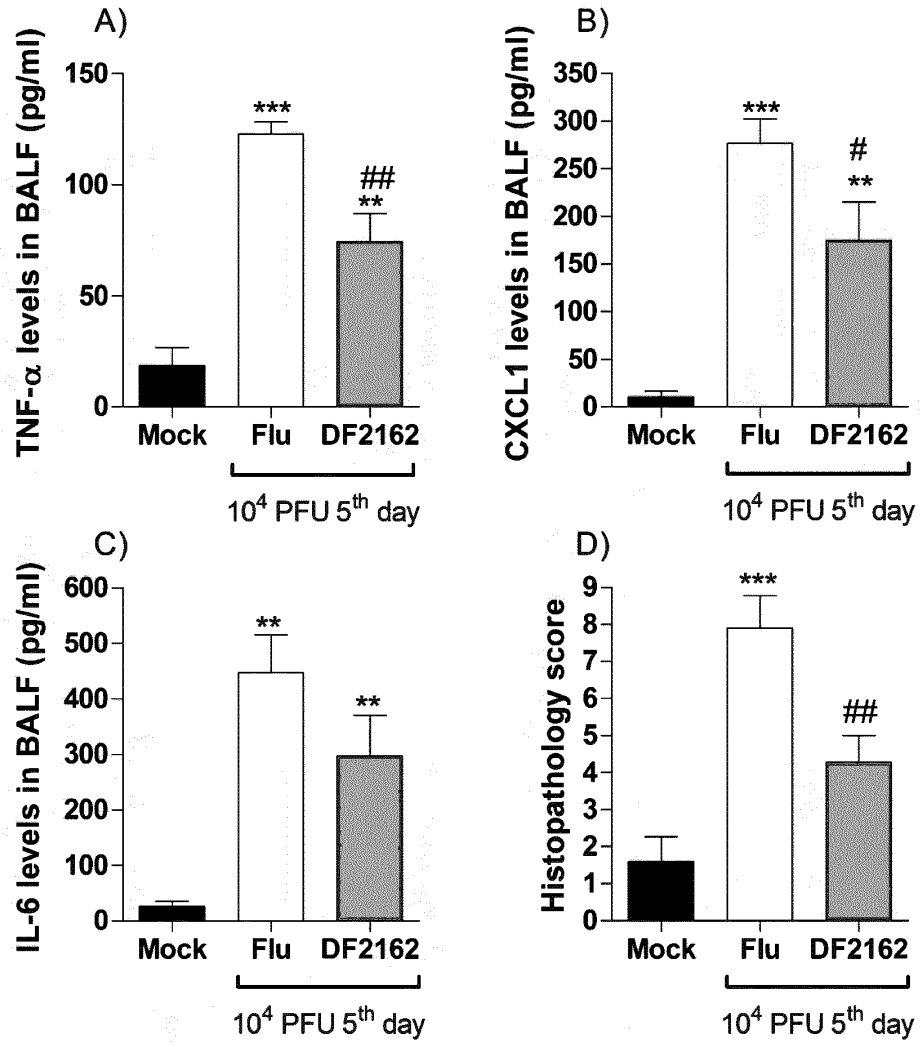

A)
TNF-α levels in BALF (pg/ml)
150
100
50
0
***
##
**
Mock
Flu
DF2162
10^4 PFU 5th day
B)
CXCL1 levels in BALF (pg/ml)
350
300
250
200
150
100
50
0
***
#
**
Mock
Flu
DF2162
10^4 PFU 5th day
C)
IL-6 levels in BALF (pg/ml)
600
500
400
300
200
100
0
**
**
Mock
Flu
DF2162
10^4 PFU 5th day
D)
Histopathology score
9
8
7
6
5
4
3
2
1
0
***
##
Mock
Flu
DF2162
10^4 PFU 5th day

Figure 3

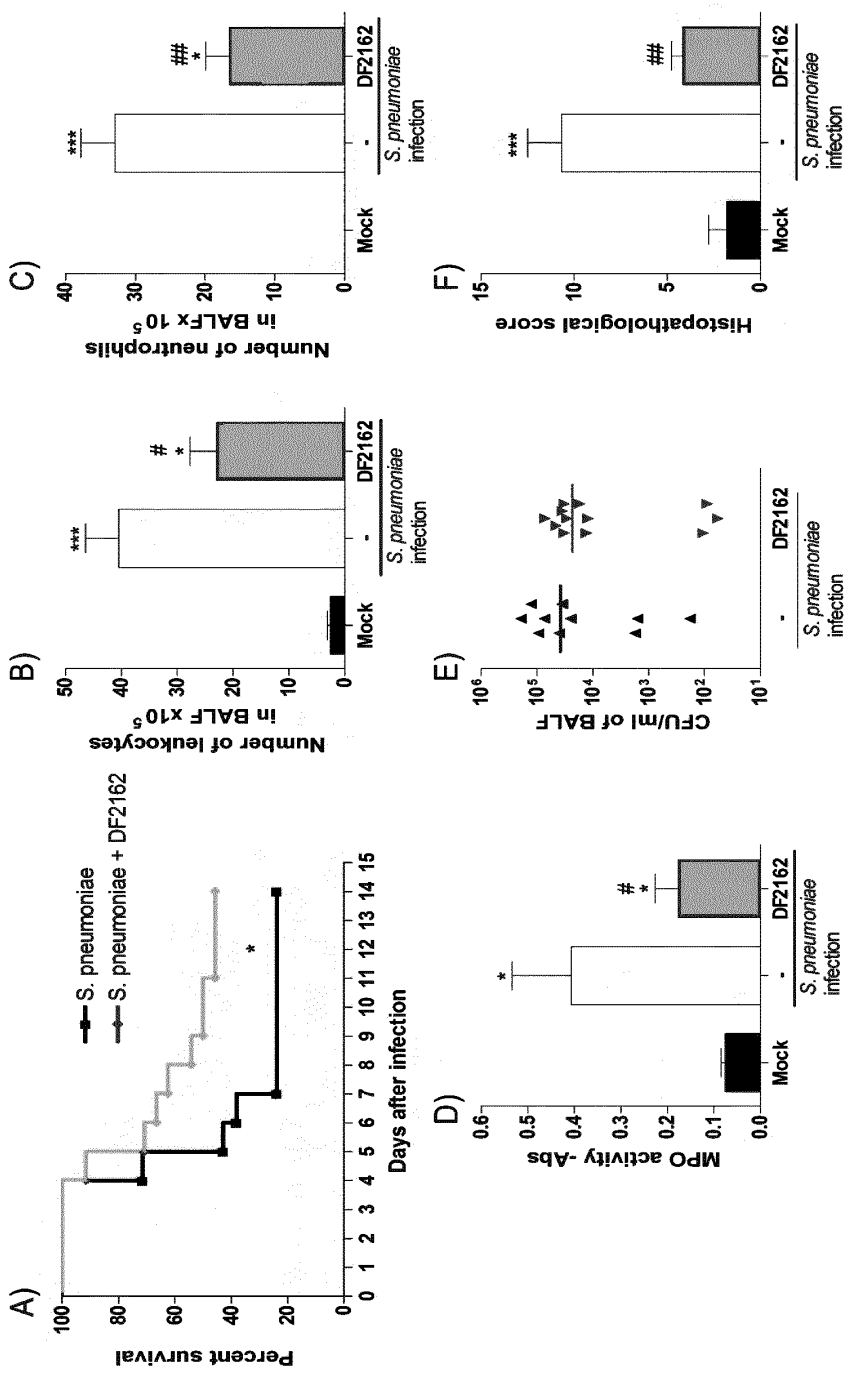

A)
Percent survival
Days after infection
S. pneumoniae
S. pneumoniae + DF2162
B)
Number of leukocytes in BALF x10^5
C)
Number of neutrophils in BALFx 10^5
D)
MPO activity -Abs
E)
CFU/ml of BALF
F)
Histopathological score
Mock
-
DF2162
S. pneumoniae infection

Figure 4

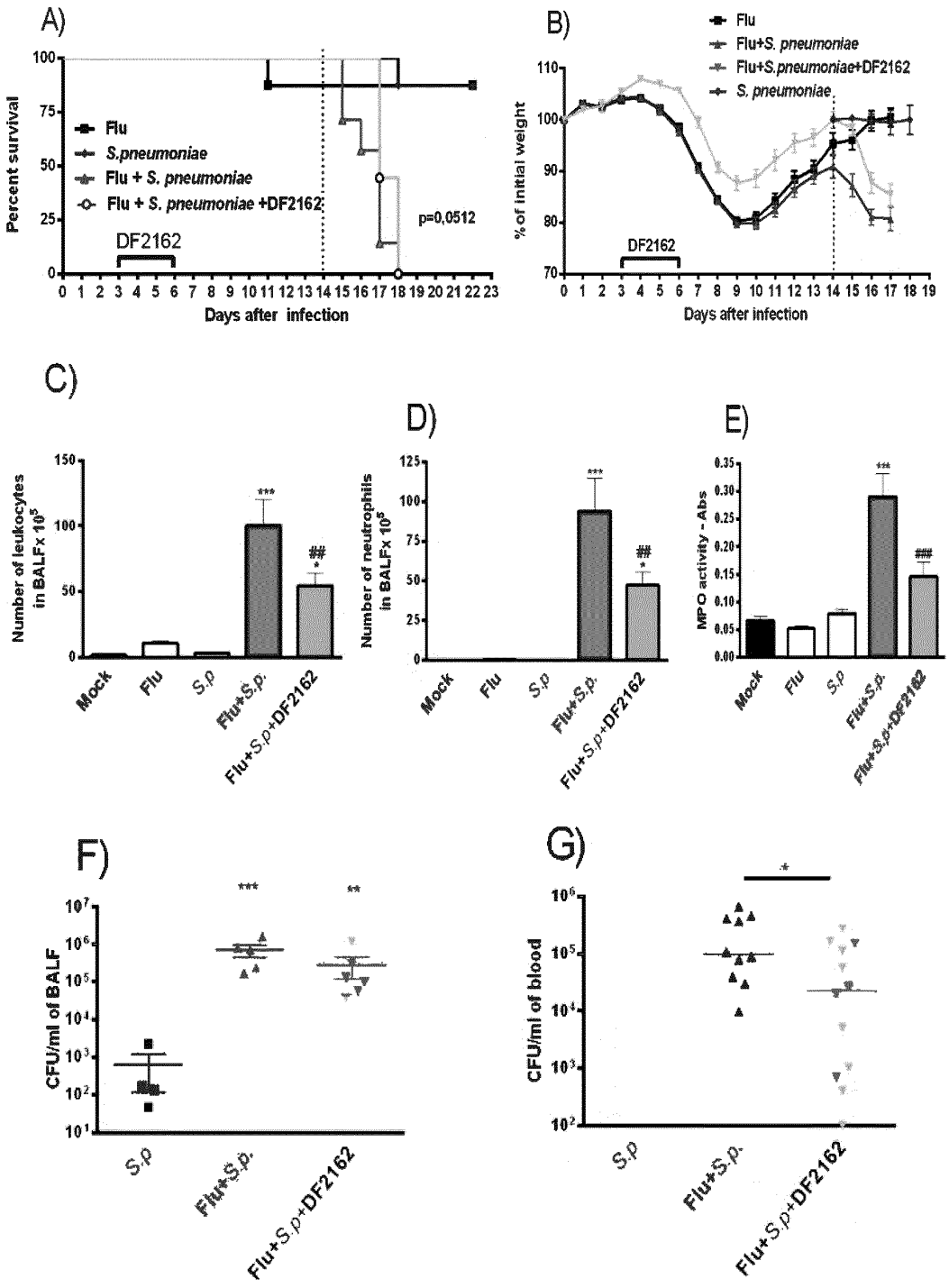

A)
Percent survival
Flu
S.pneumoniae
Flu + S. pneumoniae
Flu + S. pneumoniae +DF2162
p=0,0512
DF2162
Days after infection
B)
Flu
Flu+S. pneumoniae
Flu+S.pneumoniae+DF2162
S. pneumoniae
% of initial weight
DF2162
Days after infection
C)
Number of leukocytes in BALF x 10^5
Mock
Flu
S.p
Flu+S.p.
Flu+S.p+DF2162
D)
Number of neutrophils in BALF x 10^5
E)
MPO activity - Abs
F)
CFU/ml of BALF
G)
CFU/ml of blood

Figure 5

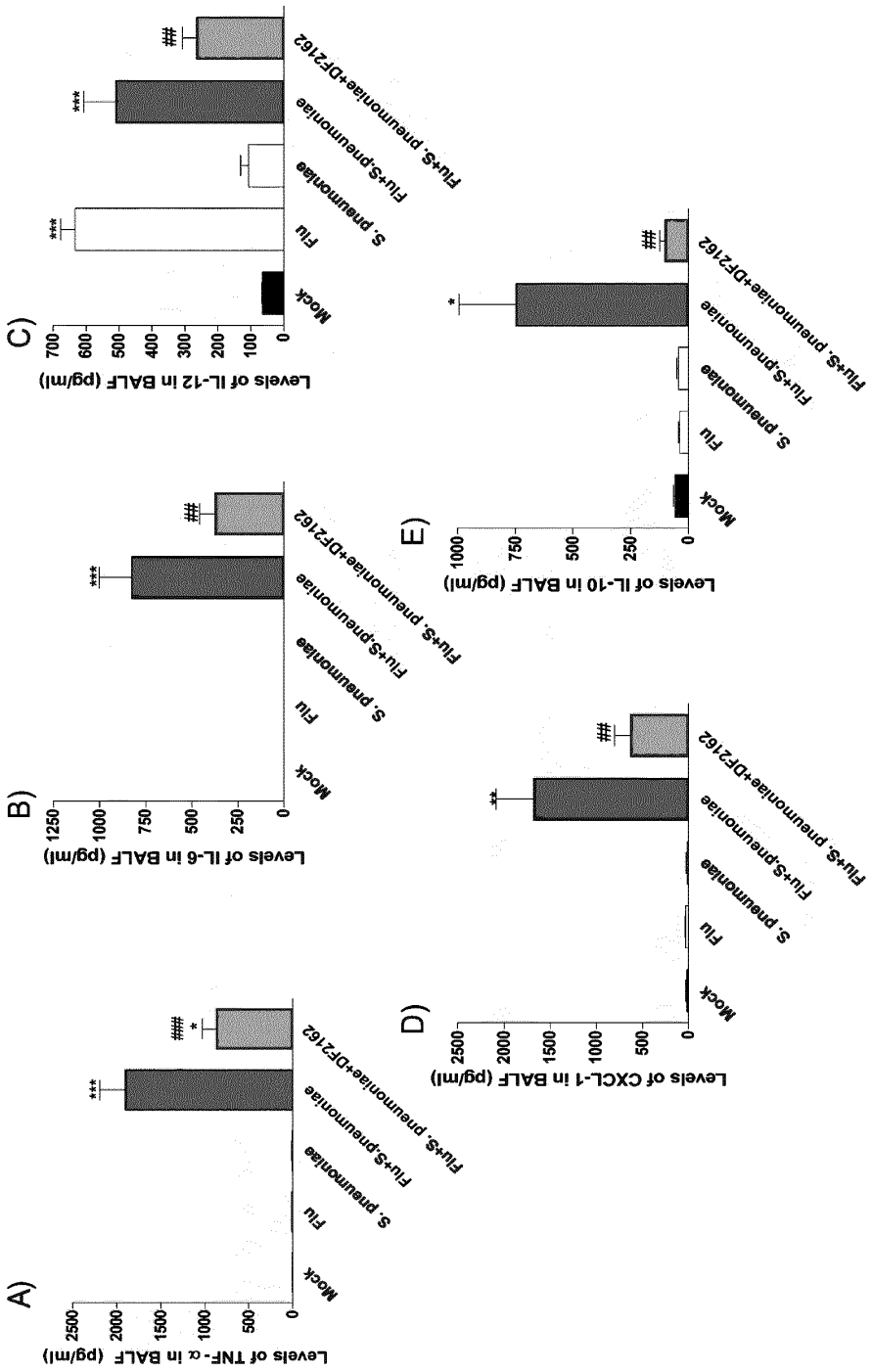

A)
Levels of TNF-α in BALF (pg/ml)
2500
2000
1500
1000
500
0
Mock
Flu
S. pneumoniae
Flu+S.pneumoniae
Flu+S. pneumoniae+DF2162
***
*
###
B)
Levels of IL-6 in BALF (pg/ml)
1250
1000
750
500
250
0
Mock
Flu
S. pneumoniae
Flu+S.pneumoniae
Flu+S. pneumoniae+DF2162
***
##
C)
Levels of IL-12 in BALF (pg/ml)
700
600
500
400
300
200
100
0
Mock
Flu
S. pneumoniae
Flu+S.pneumoniae
Flu+S. pneumoniae+DF2162
***
***
##
D)
Levels of CXCL-1 in BALF (pg/ml)
2500
2000
1500
1000
500
0
Mock
Flu
S. pneumoniae
Flu+S.pneumoniae
Flu+S. pneumoniae+DF2162
**
##
E)
Levels of IL-10 in BALF (pg/ml)
1000
750
500
250
0
Mock
Flu
S. pneumoniae
Flu+S.pneumoniae
Flu+S. pneumoniae+DF2162
*
##

Figure 6

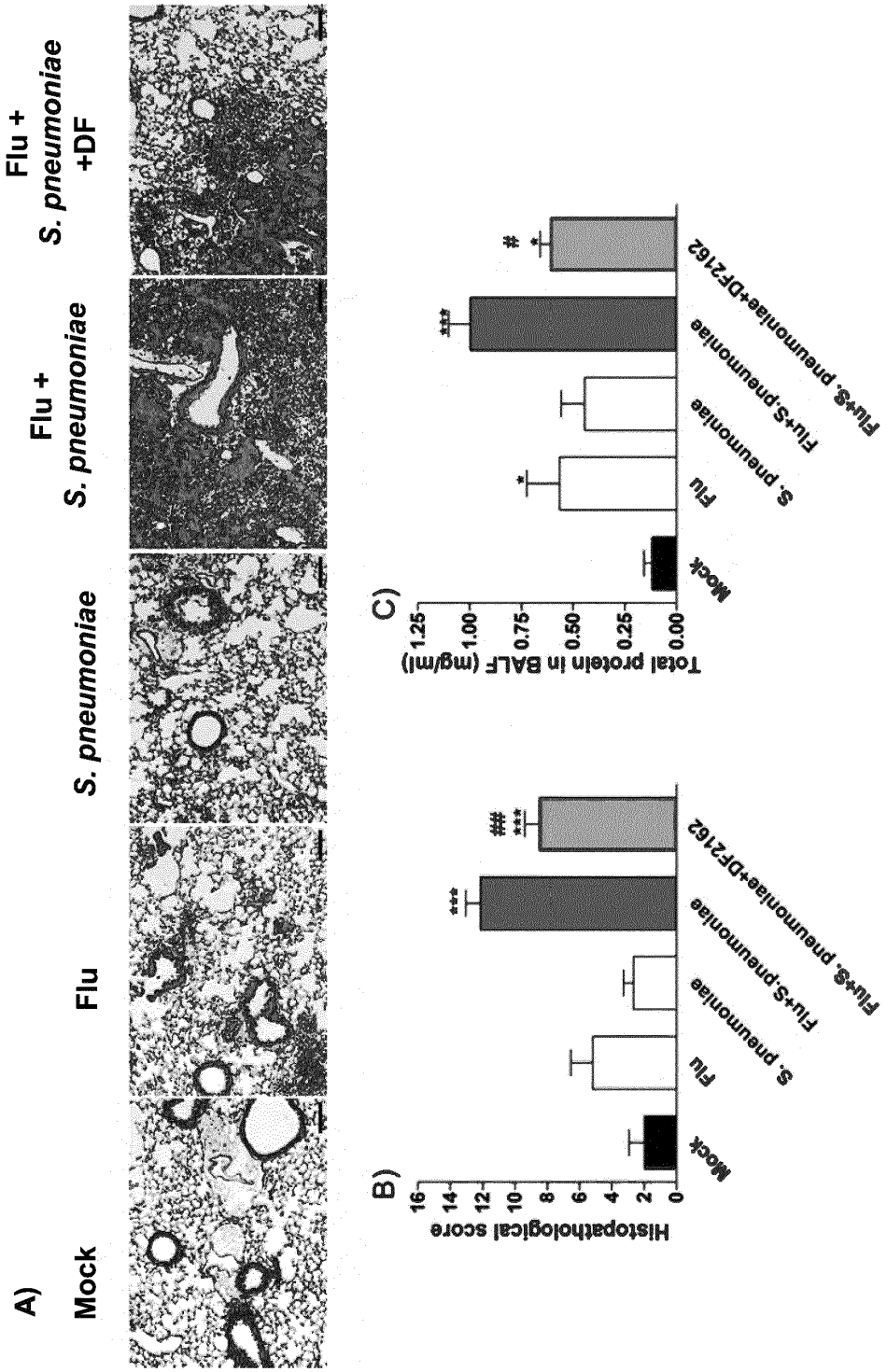

A)
Mock
Flu
S. pneumoniae
Flu + S. pneumoniae
Flu + S. pneumoniae +DF
B)
Histopathological score
0
2
4
6
8
10
12
14
16
Mock
Flu
S. pneumoniae
Flu+S.pneumoniae
Flu+S. pneumoniae+DF2162
***
***
##
C)
Total protein in BALF (mg/ml)
0.00
0.25
0.50
0.75
1.00
1.25
Mock
Flu
S. pneumoniae
Flu+S.pneumoniae
Flu+S. pneumoniae+DF2162
*
**
*
#

Figure 7

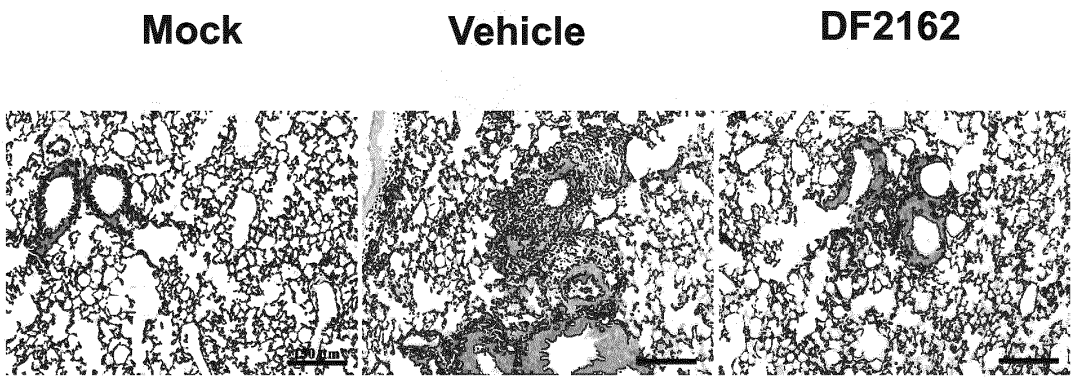


Figure 8

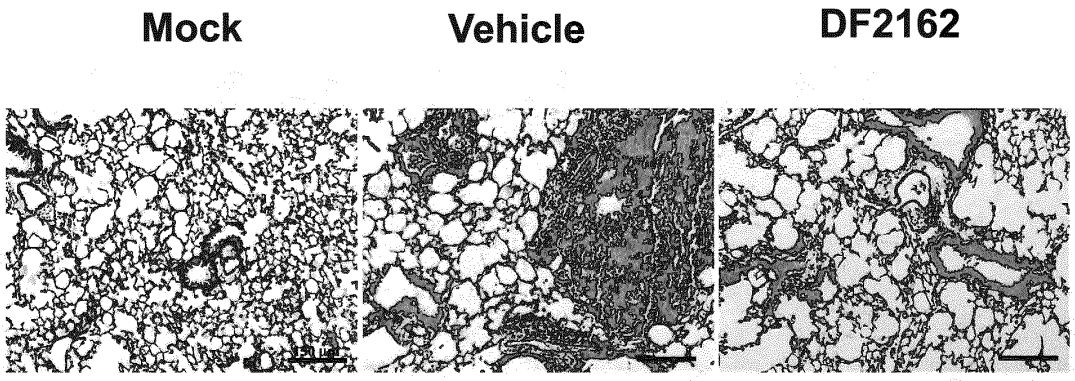


Figure 9

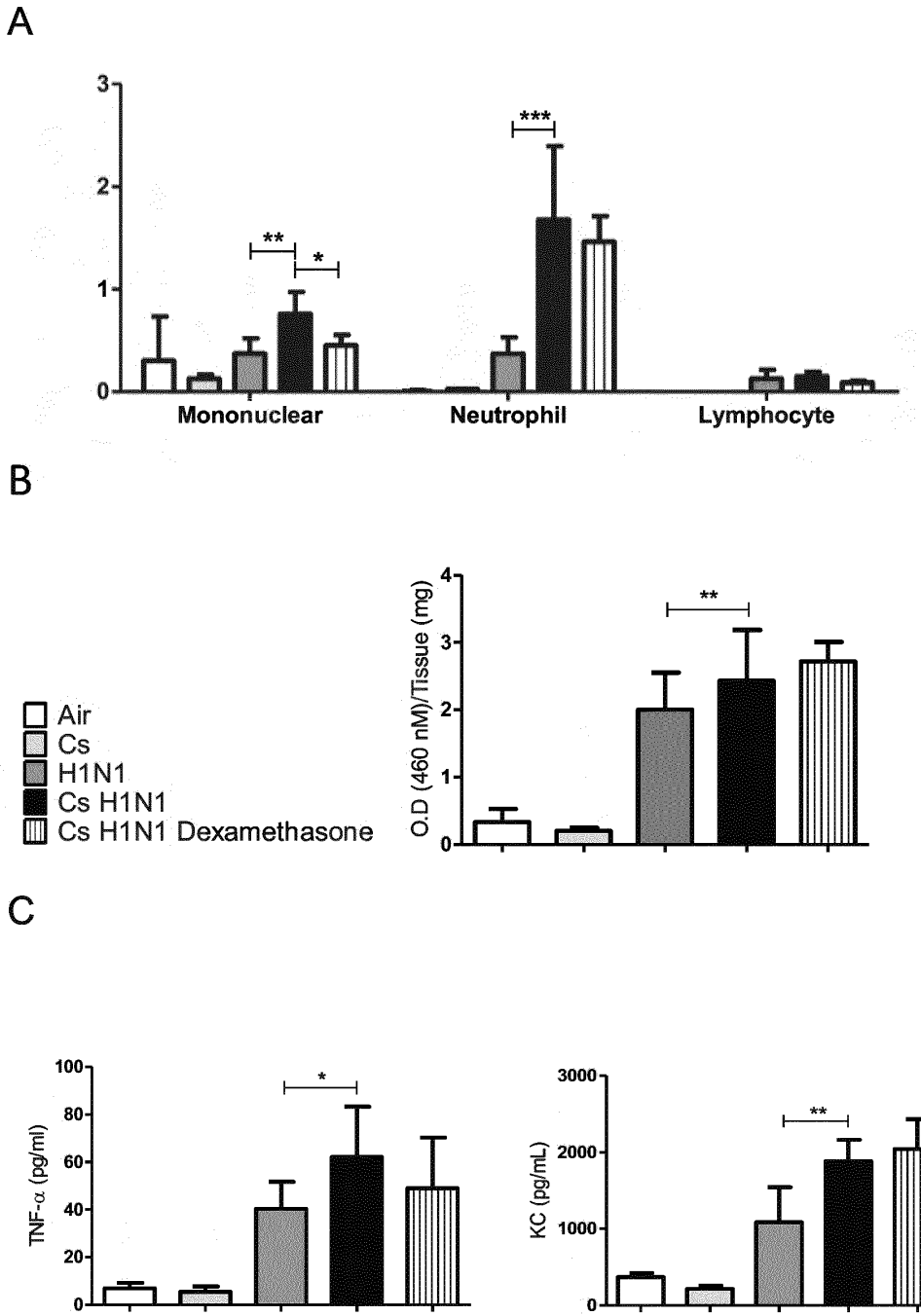

A
3
2
1
0
**
*
***
Mononuclear
Neutrophil
Lymphocyte
B
Air
Cs
H1N1
Cs H1N1
Cs H1N1 Dexamethasone
O.D (460 nM)/Tissue (mg)
4
3
2
1
0
**
C
TNF-α (pg/ml)
100
80
60
40
20
0
*
KC (pg/mL)
3000
2000
1000
0
**

Figure 10

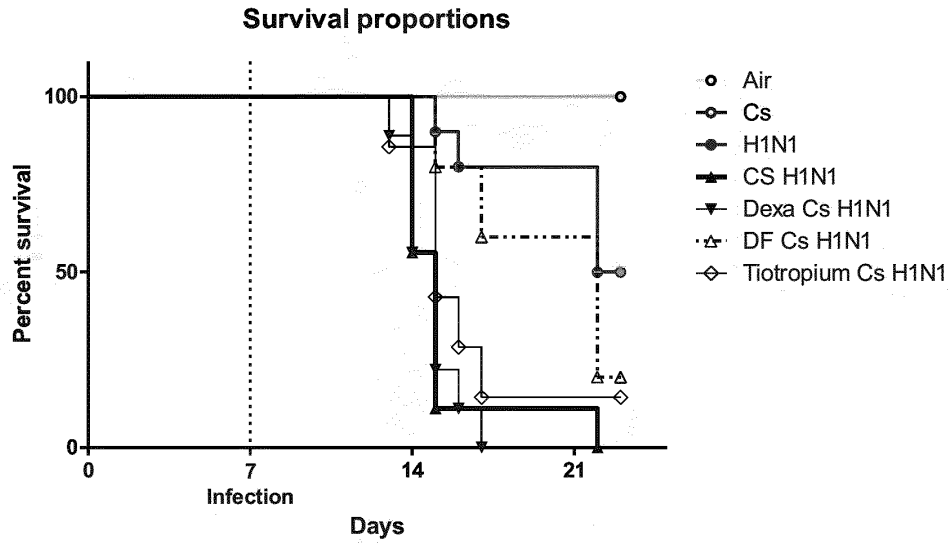

Survival proportions
Percent survival
100
50
0
0
7
14
21
Infection
Days
Air
Cs
H1N1
CS H1N1
Dexa Cs H1N1
DF Cs H1N1
Tiotropium Cs H1N1

Figure 11