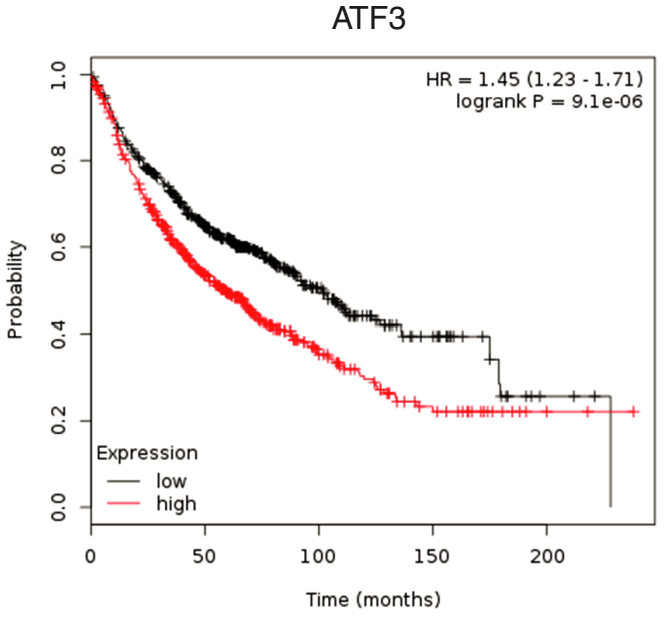
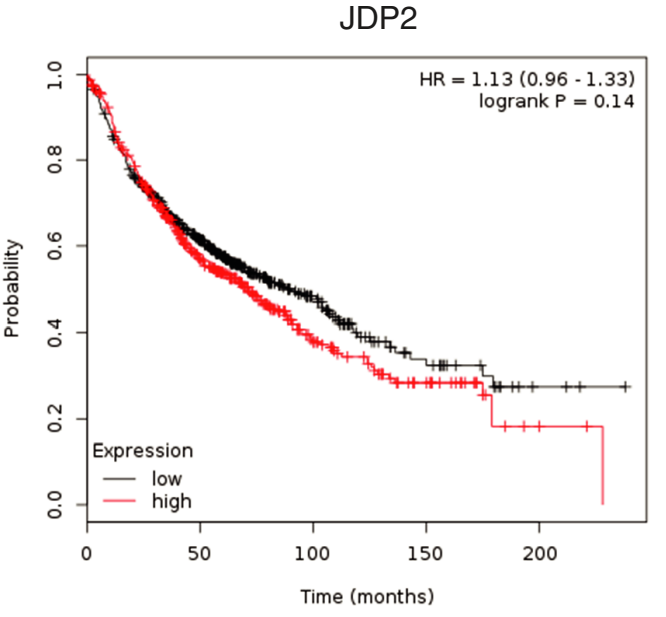
S1

a


ATF3
HR = 1.45 (1.23 - 1.71)
logrank P = 9.1e-06
Probability
1.0
0.8
0.6
0.4
0.2
0.0
Expression
low
high
0
50
100
150
200
Time (months)

b

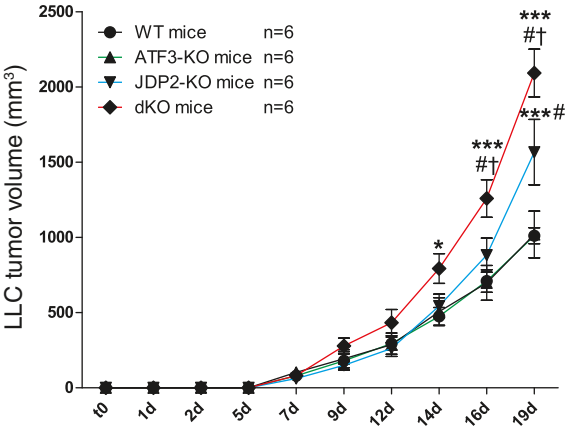

JDP2
HR = 1.13 (0.96 - 1.33)
logrank P = 0.14
Probability
1.0
0.8
0.6
0.4
0.2
0.0
Expression
low
high
0
50
100
150
200
Time (months)

S2

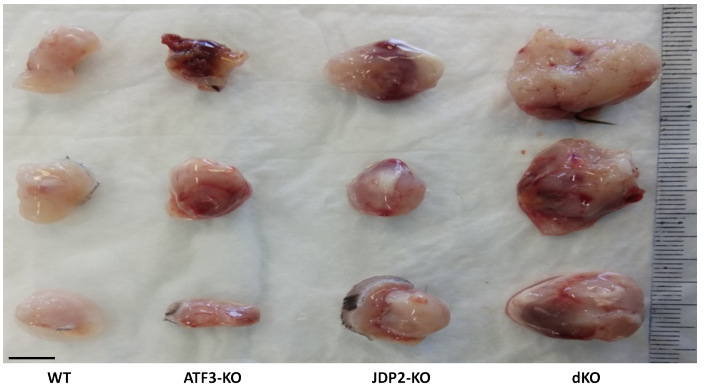
a
WT
dKO
LLC
PyMT
b
Number of pulmonary metastatic lesions per field
15
10
5
0
WT
dKO
c
Number of pulmonary metastatic lesions per field
20
10
0
WT
dKO

S3

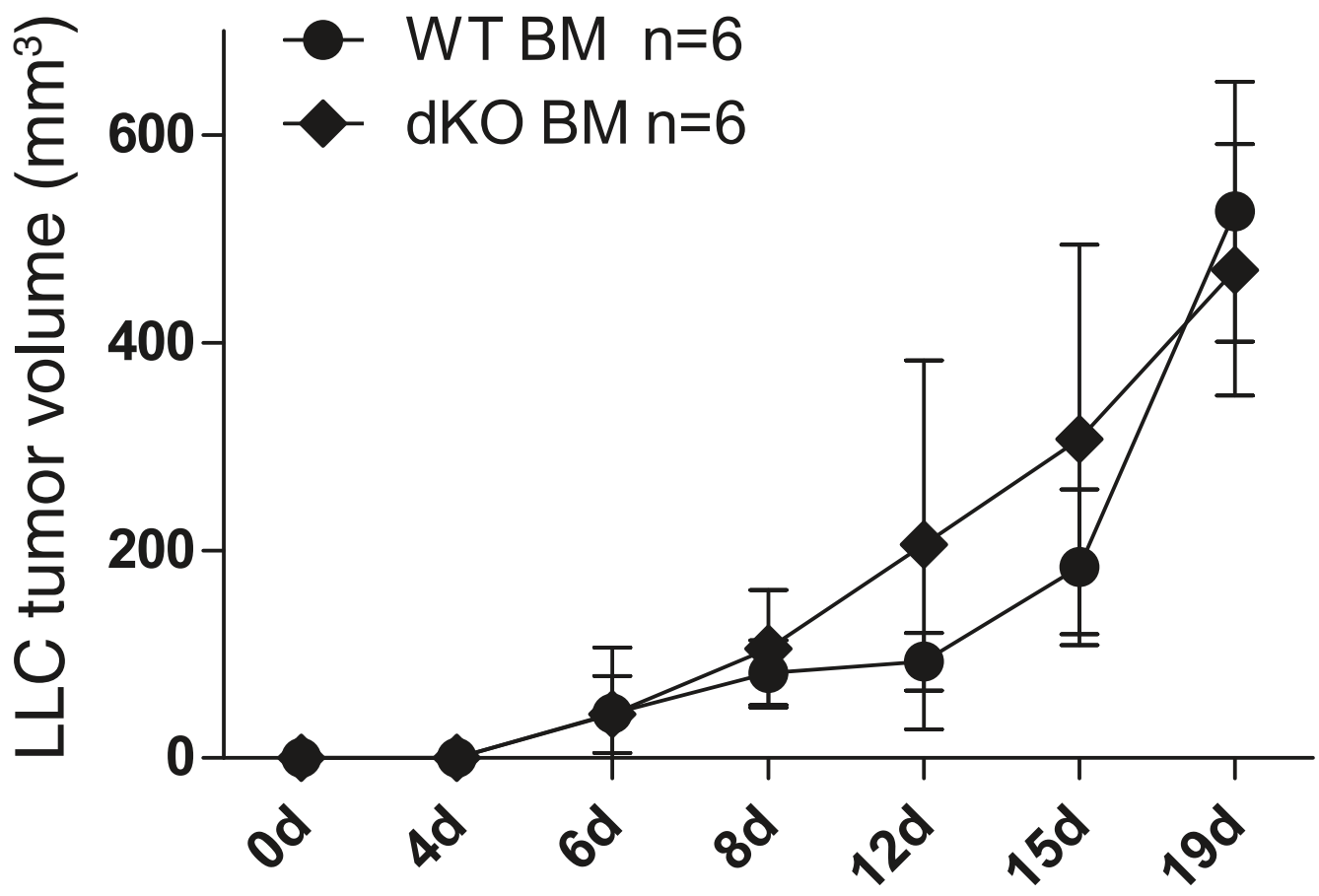
a


2500
2000
1500
1000
500
0
LLC tumor volume (mm3)
WT mice n=6
ATF3-KO mice n=6
JDP2-KO mice n=6
dKO mice n=6
*
***
#†
***
#†
***#
t0
1d
2d
5d
7d
9d
12d
14d
16d
19d

b

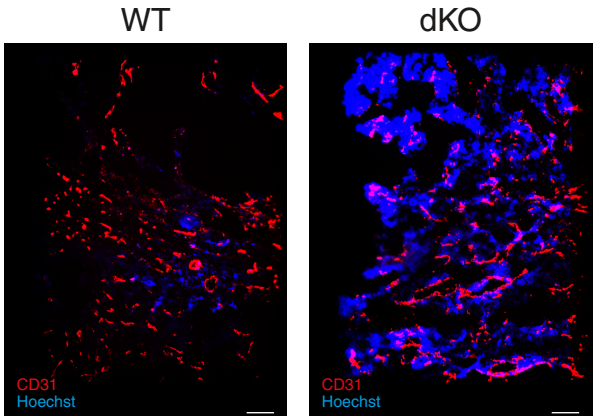

WT
ATF3-KO
JDP2-KO
dKO

S4

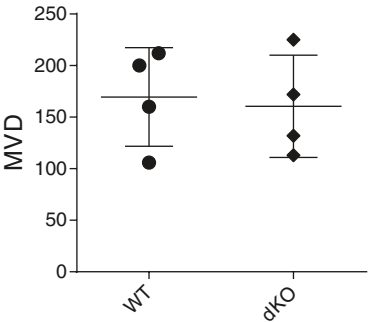

WT BM n=6
dKO BM n=6
LLC tumor volume (mm3)
600
400
200
0
0d
4d
6d
8d
12d
15d
19d

S5

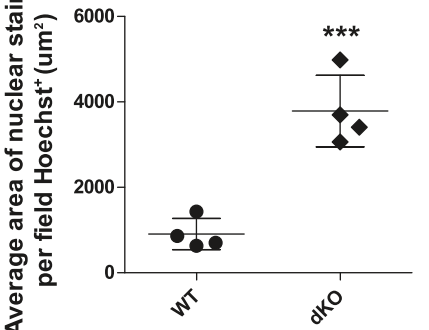
a


WT
dKO
CD31
Hoechst
CD31
Hoechst

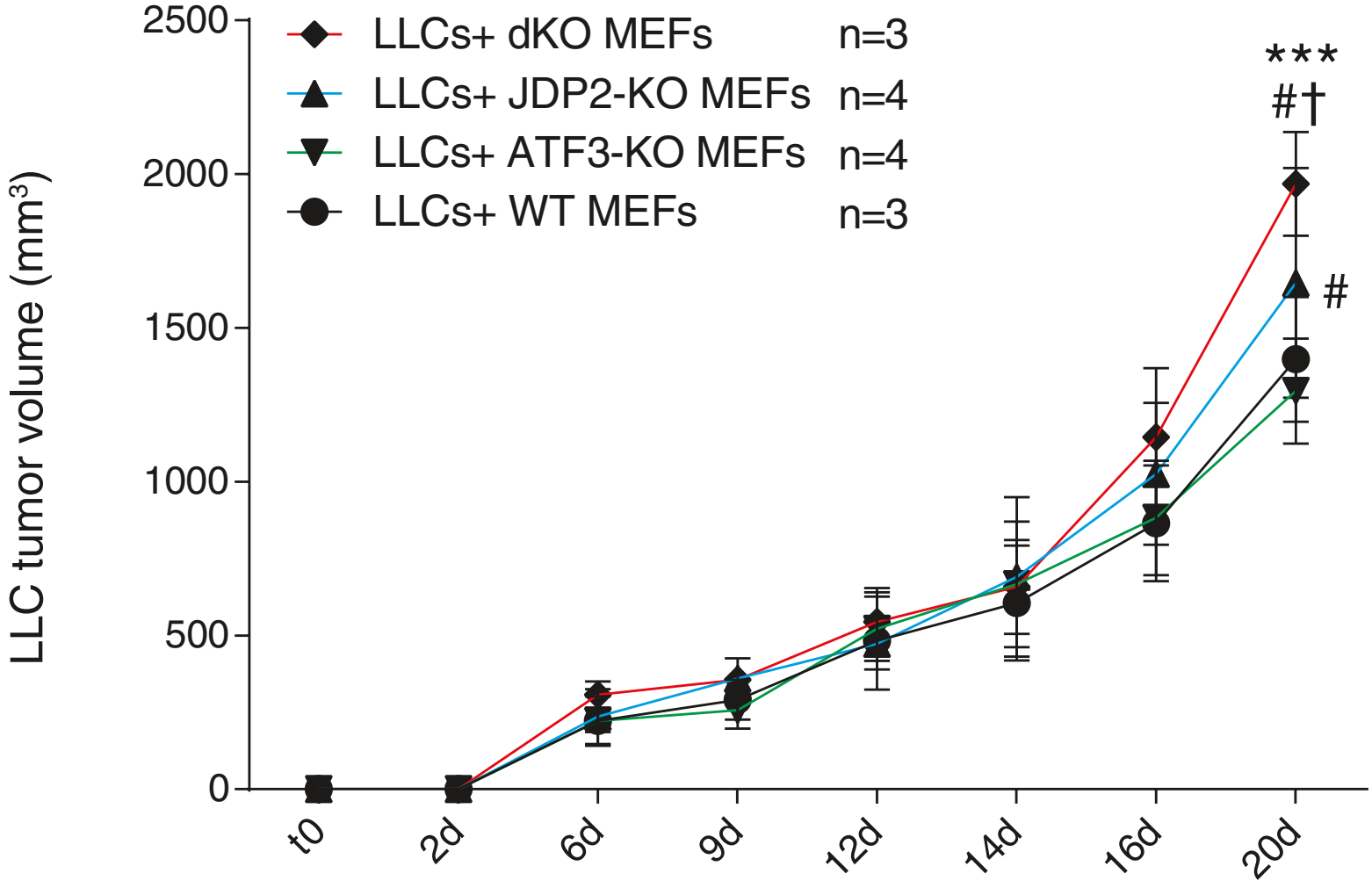
b


MVD
250
200
150
100
50
0
WT
dKO

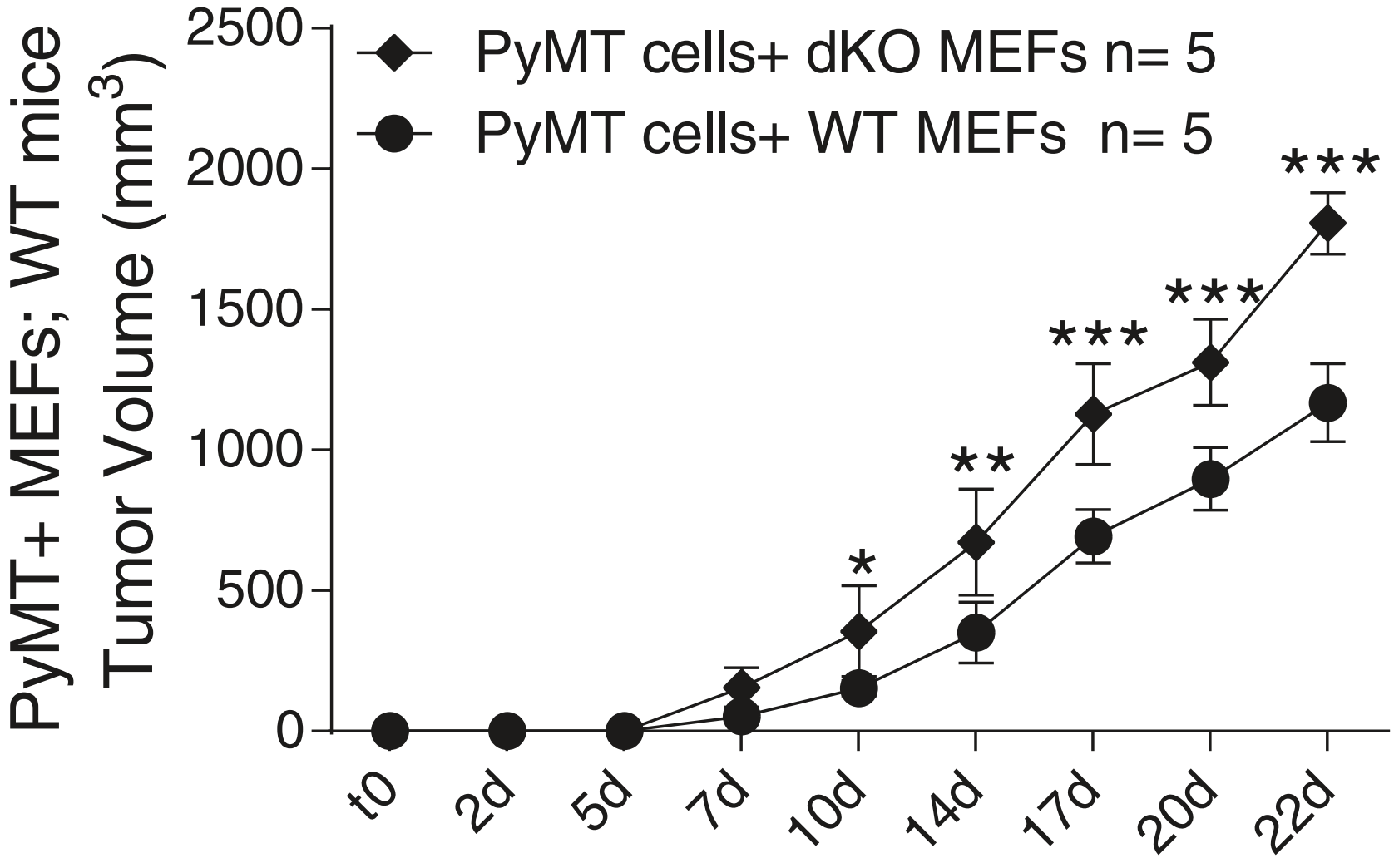
c


Average area of nuclear staining per field Hoechst+ (um2)
6000
4000
2000
0
***
WT
dKO

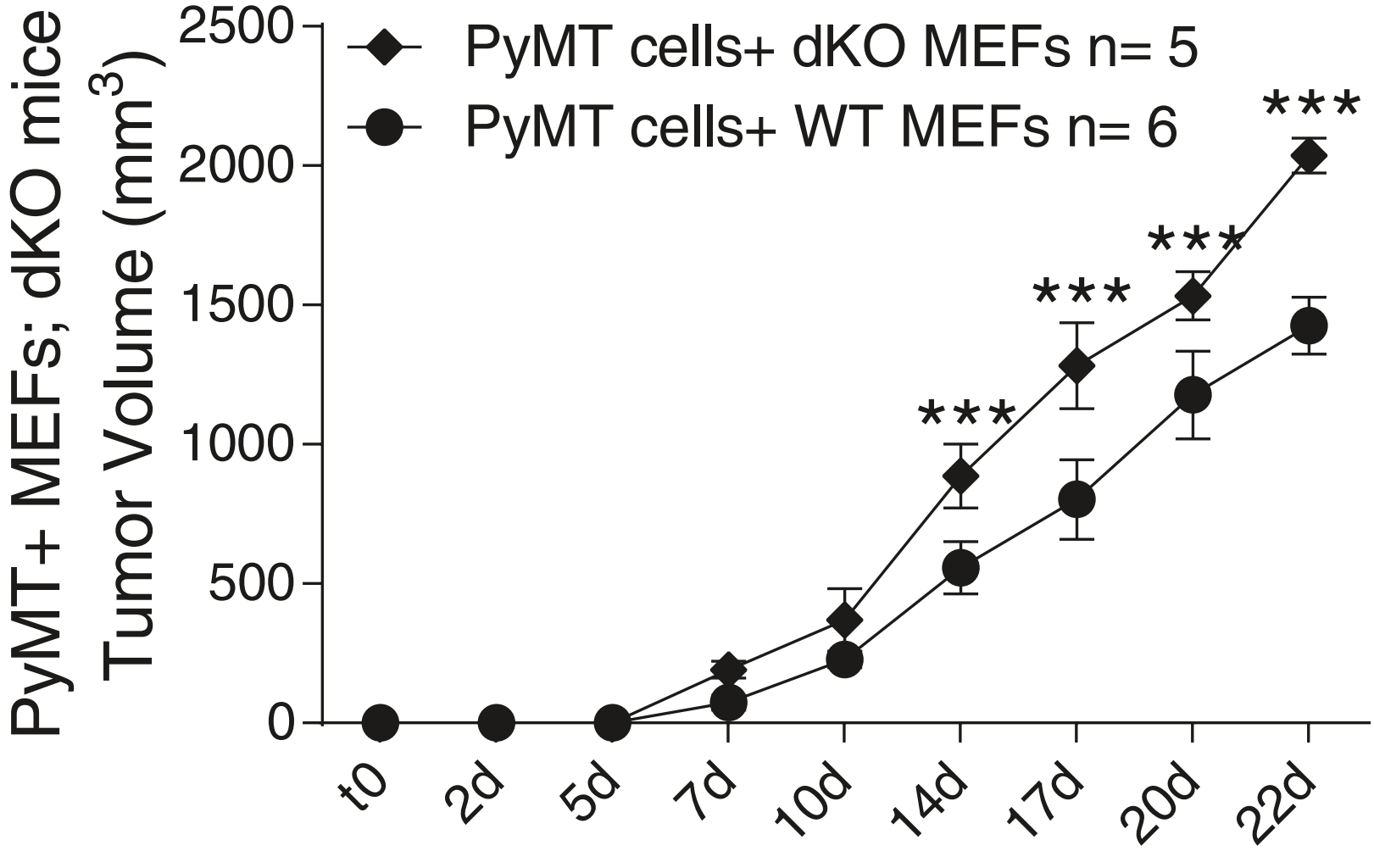
S6


LLCs+ dKO MEFs n=3
LLCs+ JDP2-KO MEFs n=4
LLCs+ ATF3-KO MEFs n=4
LLCs+ WT MEFs n=3
LLC tumor volume (mm3)
2500
2000
1500
1000
500
0
t0
2d
6d
9d
12d
14d
16d
20d
***
#†
#

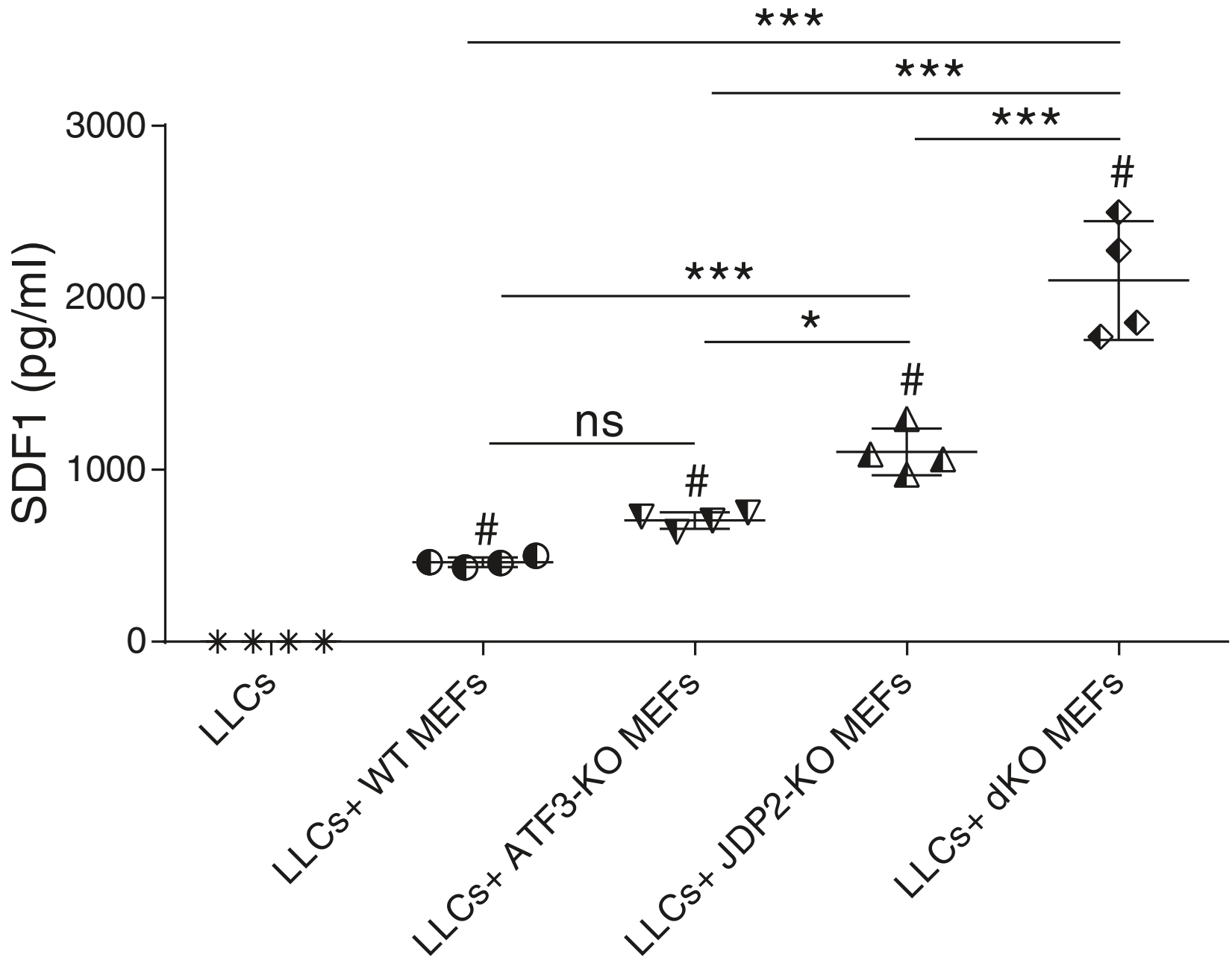
S7


PyMT cells+ dKO MEFs n= 5
PyMT cells+ WT MEFs n= 5
PyMT+ MEFs; WT mice
Tumor Volume (mm3)
2500
2000
1500
1000
500
0
t0
2d
5d
7d
10d
14d
17d
20d
22d
*
**
***
***
***

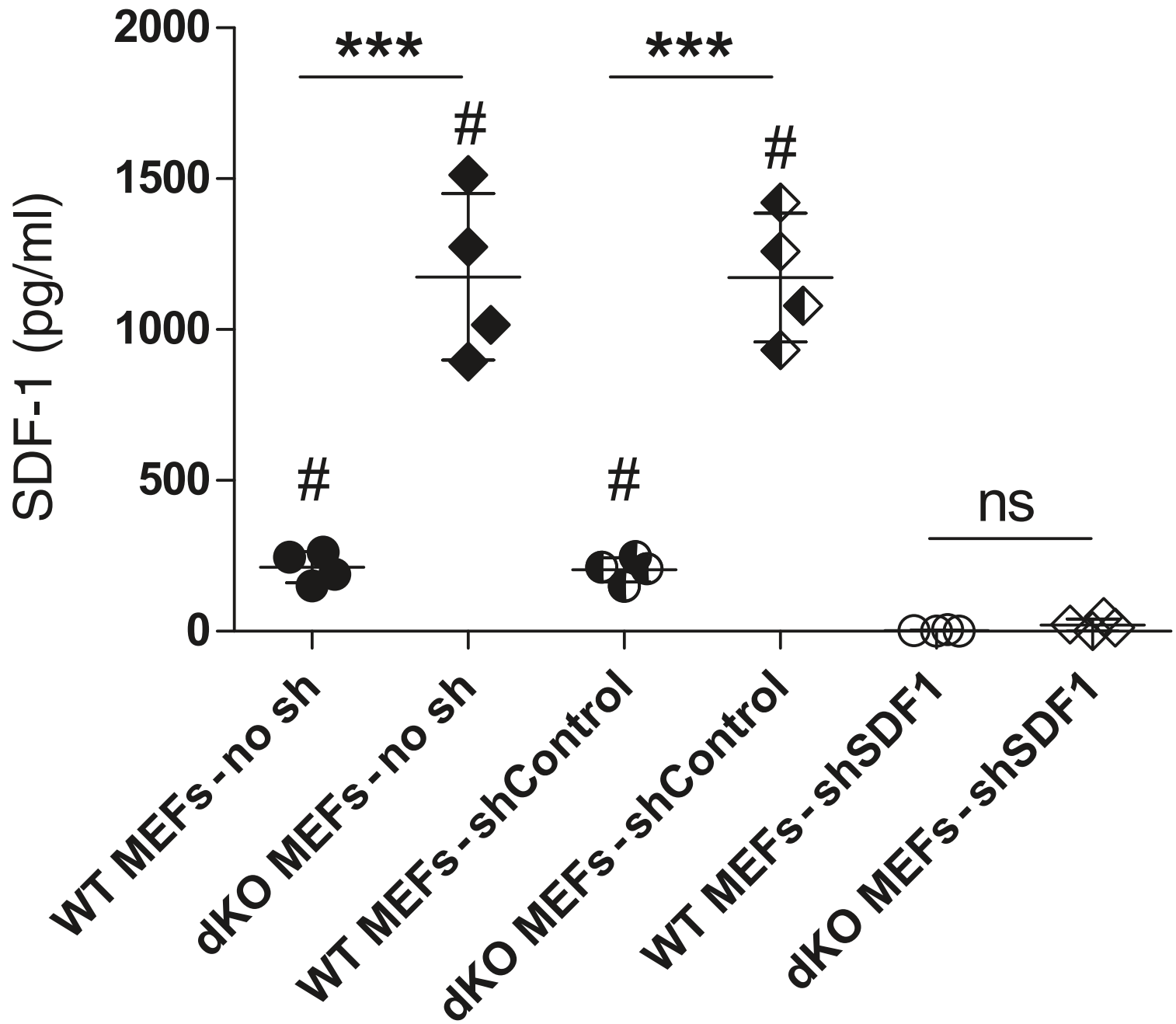
S8


PyMT+ MEFs; dKO mice
Tumor Volume (mm3)
2500
2000
1500
1000
500
0
PyMT cells+ dKO MEFs n= 5
PyMT cells+ WT MEFs n= 6
***
***
***
***
t0
2d
5d
7d
10d
14d
17d
20d
22d

S9


***
***
***
***
*
ns
#
#
#
#
3000
2000
1000
0
SDF1 (pg/ml)
LLCs
LLCs+ WT MEFs
LLCs+ ATF3-KO MEFs
LLCs+ JDP2-KO MEFs
LLCs+ dKO MEFs

S10


2000
1500
1000
500
0
SDF-1 (pg/ml)
***
***
#
#
#
#
ns
WT MEFs - no sh
dKO MEFs - no sh
WT MEFs - shControl
dKO MEFs - shControl
WT MEFs - shSDF1
dKO MEFs - shSDF1