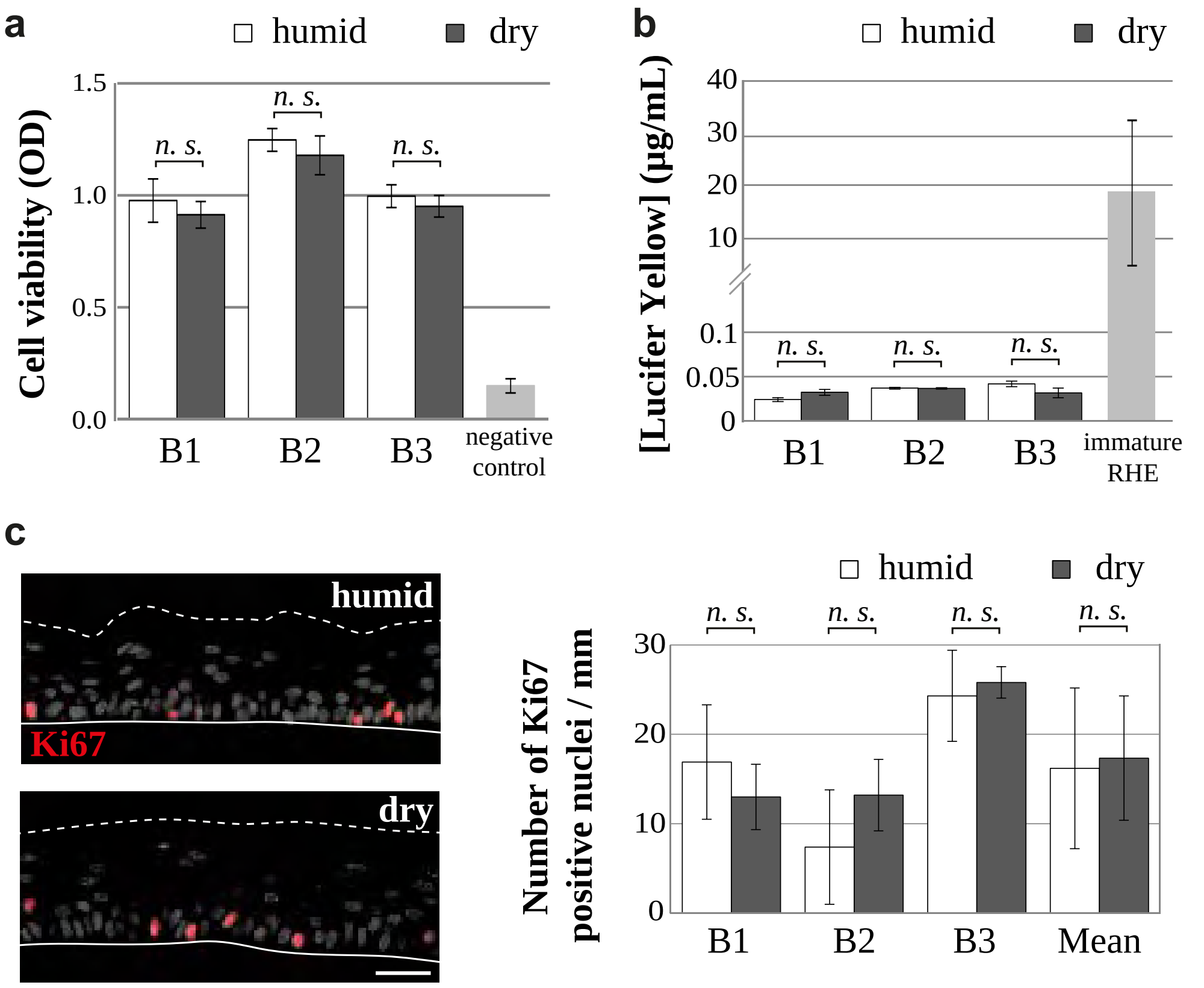
a
humid
dry
Cell viability (OD)
1.5
1.0
0.5
0.0
n. s.
n. s.
n. s.
B1
B2
B3
negative control
b
humid
dry
[Lucifer Yellow] (µg/mL)
40
30
20
10
0.1
0.05
0
n. s.
n. s.
n. s.
B1
B2
B3
immature RHE
c
humid
Ki67
dry
humid
dry
Number of Ki67 positive nuclei / mm
30
20
10
0
n. s.
n. s.
n. s.
n. s.
B1
B2
B3
Mean

Figure S1

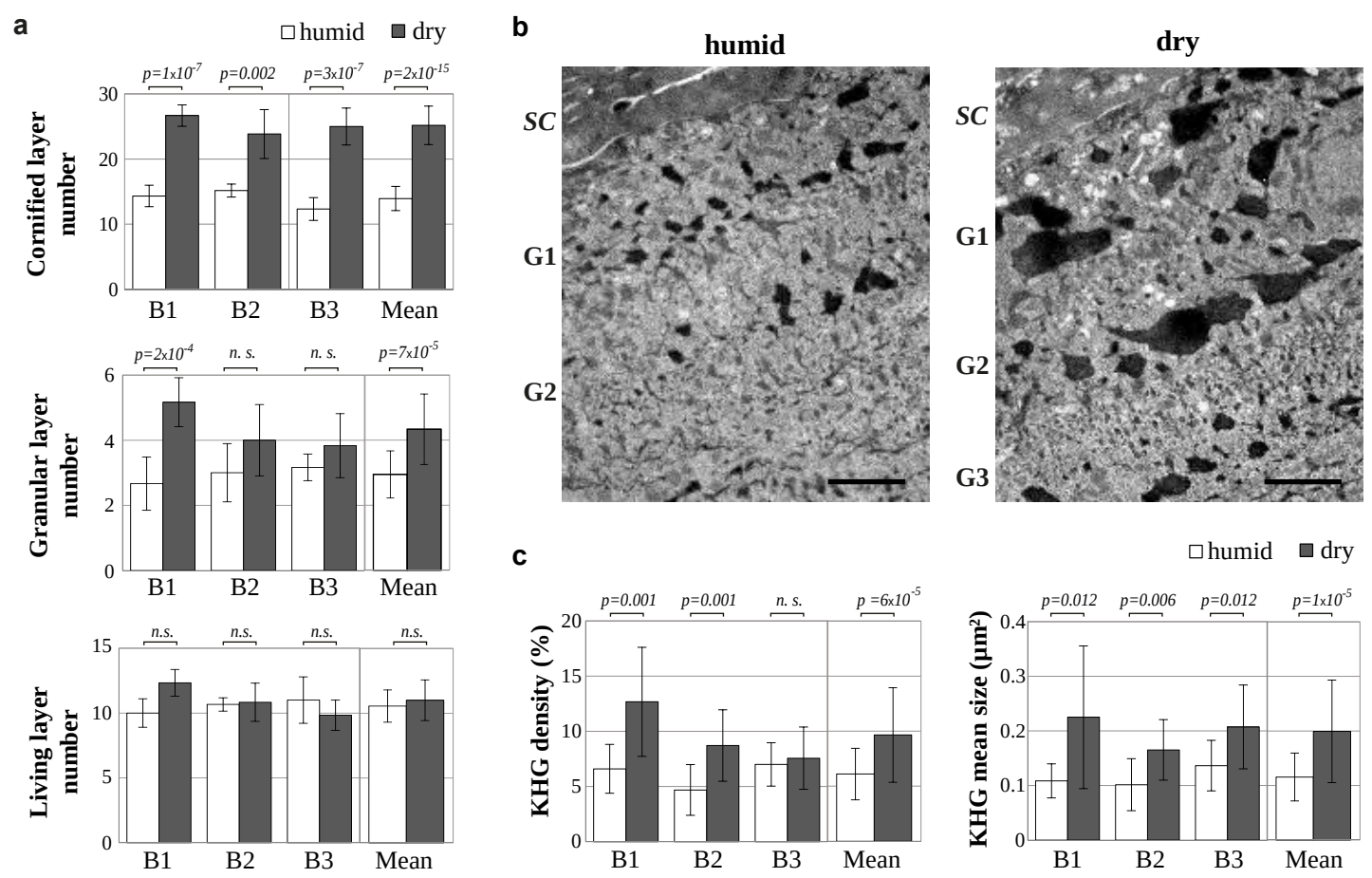
a
humid
dry
Cornified layer number
p=1x10-7
p=0.002
p=3x10-7
p=2x10-15
B1
B2
B3
Mean
Granular layer number
p=2x10-4
n. s.
p=7x10-5
Living layer number
n.s.
b
humid
dry
SC
G1
G2
G3
c
KHG density (%)
p=0.001
p=6x10-5
KHG mean size (µm2)
p=0.012
p=1x10-5

Figure S2

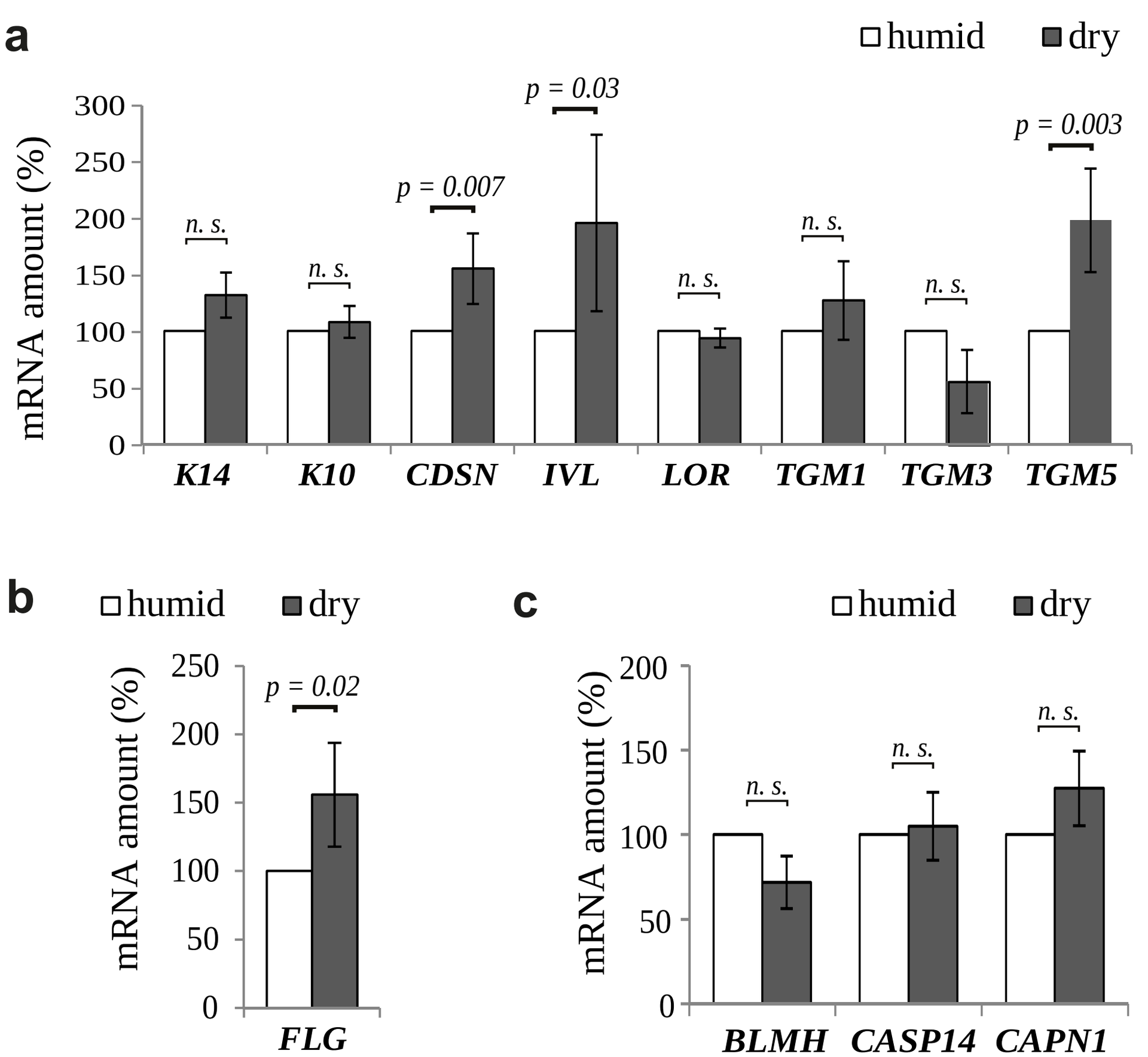
a
humid
dry
mRNA amount (%)
300
250
200
150
100
50
0
p = 0.03
p = 0.003
p = 0.007
n. s.
n. s.
n. s.
n. s.
n. s.
n. s.
K14
K10
CDSN
IVL
LOR
TGM1
TGM3
TGM5
b
humid
dry
mRNA amount (%)
250
200
150
100
50
0
p = 0.02
FLG
c
humid
dry
mRNA amount (%)
200
150
100
50
0
n. s.
n. s.
n. s.
BLMH
CASP14
CAPN1

Figure S3

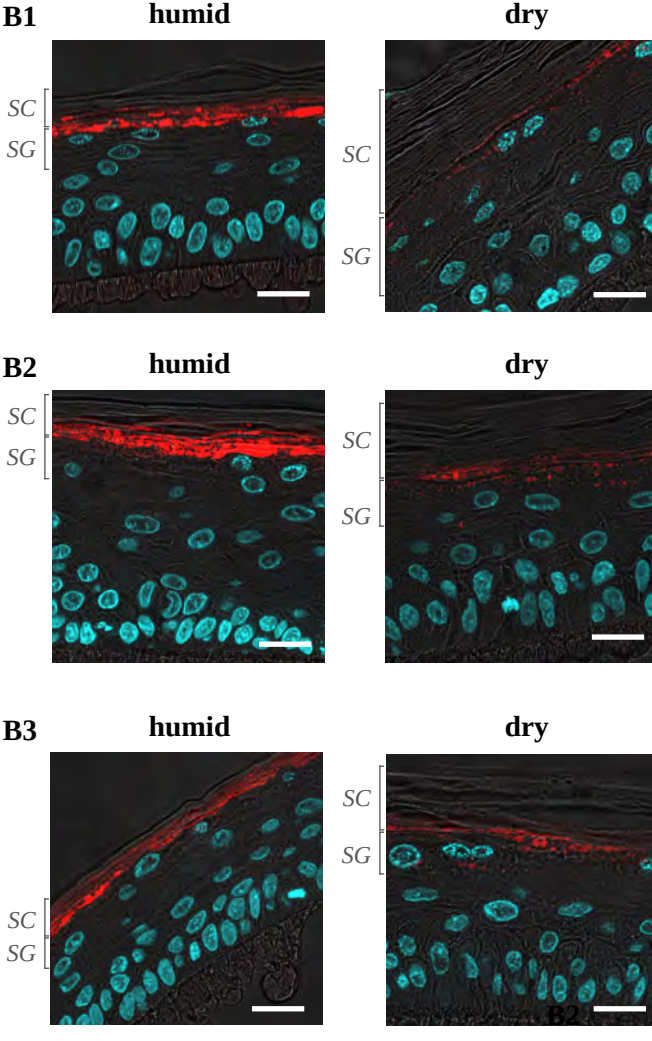
B1
humid
dry
SC
SG
SC
SG
B2
humid
dry
SC
SG
SC
SG
B3
humid
dry
SC
SG
SC
SG

Figure S4

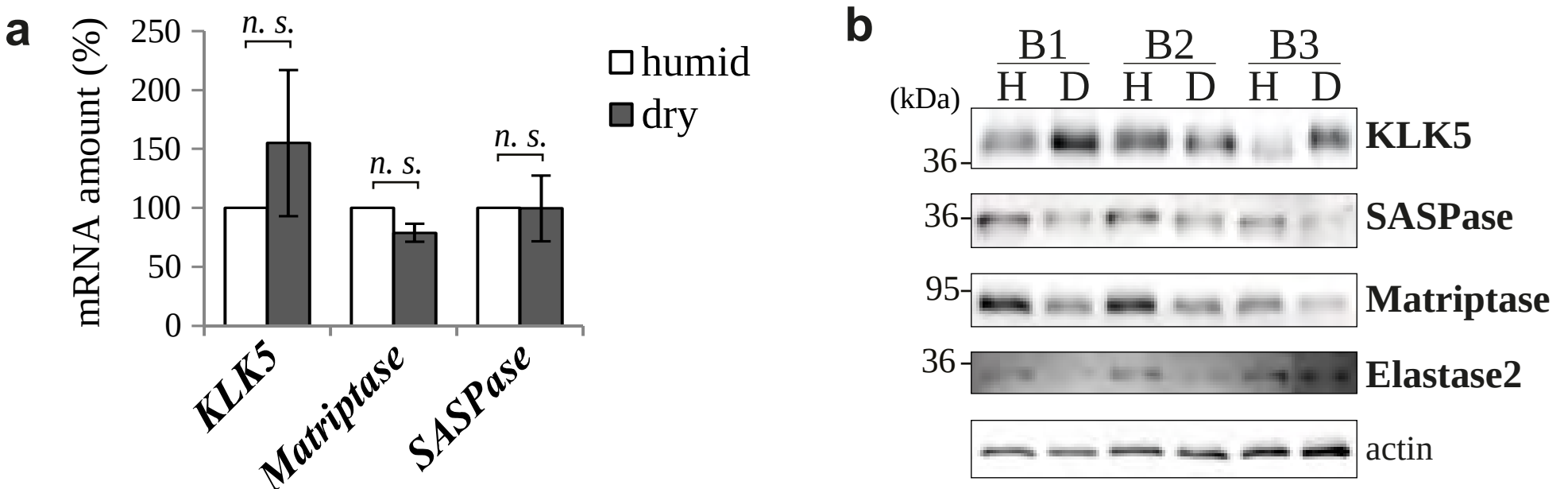
a
mRNA amount (%)
250
200
150
100
50
0
n. s.
n. s.
n. s.
humid
dry
KLK5
Matriptase
SASPase
b
B1
B2
B3
H D H D H D
(kDa)
36
36
95
36
KLK5
SASPase
Matriptase
Elastase2
actin

Figure S5

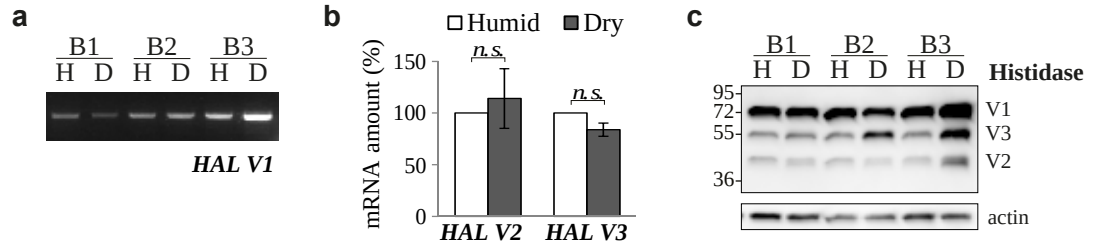
a
B1
B2
B3
H D H D H D
HAL V1
b
Humid
Dry
n.s.
n.s.
mRNA amount (%)
150
100
50
0
HAL V2
HAL V3
c
B1
B2
B3
H D H D H D
Histidase
95
72
55
36
V1
V3
V2
actin

Figure S6