PLOS ONE

CORRECTION

Correction: KRIT1 Regulates the Homeostasis of Intracellular Reactive Oxygen Species

The *PLOS ONE* staff

Fig 3 is incorrect. The authors have provided a corrected version here. The publisher apologizes for the error.

Citation: The *PLOS ONE* staff (2019) Correction: KRIT1 Regulates the Homeostasis of Intracellular Reactive Oxygen Species. PLoS ONE 14(11): e0223089. https://doi.org/10.1371/journal.pone.0223089

Published: November 7, 2019

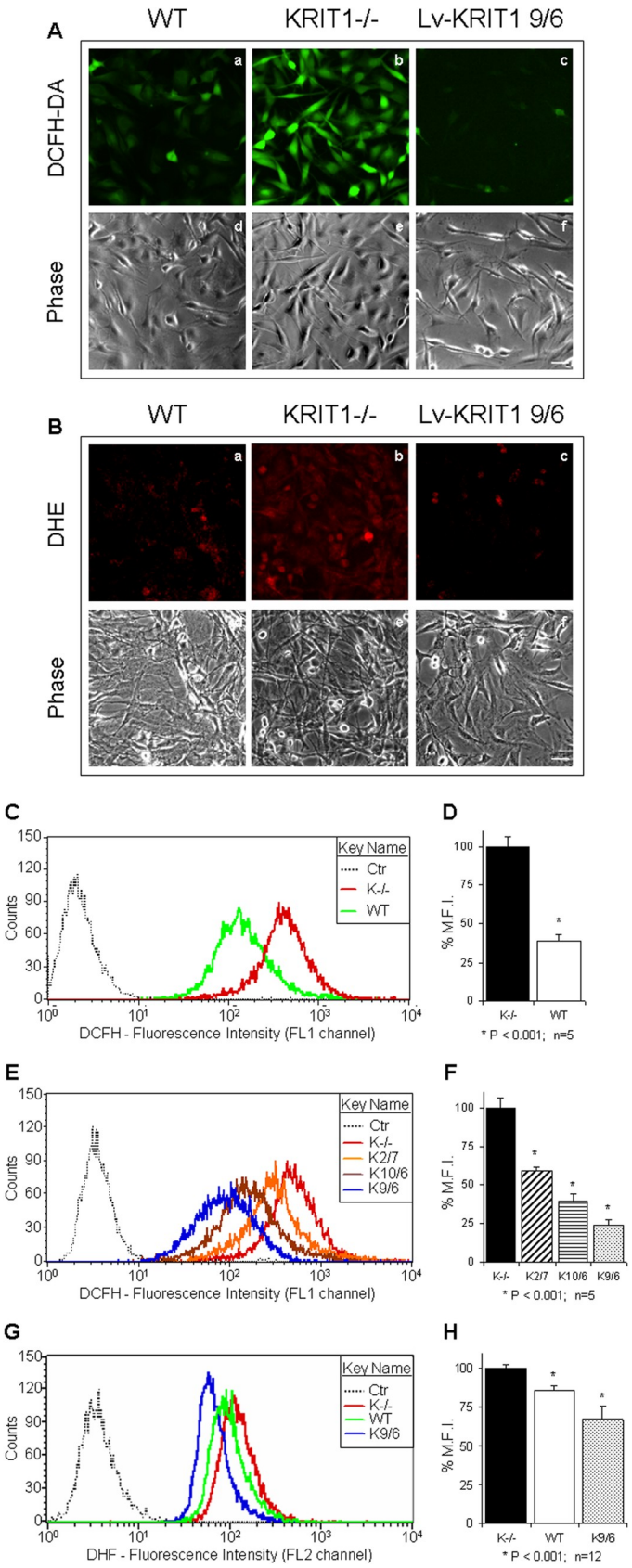
A
WT
KRIT1-/-
Lv-KRIT1 9/6
DCFH-DA
Phase
a
b
c
d
e
f
B
WT
KRIT1-/-
Lv-KRIT1 9/6
DHE
Phase
a
b
c
C
Key Name
Ctr
K-/-
WT
Counts
DCFH - Fluorescence Intensity (FL1 channel)
D
% M.F.I.
K-/-
WT
* P < 0.001; n=5
E
Key Name
Ctr
K-/-
K2/7
K10/6
K9/6
Counts
DCFH - Fluorescence Intensity (FL1 channel)
F
% M.F.I.
K-/-
K2/7
K10/6
K9/6
* P < 0.001; n=5
G
Key Name
Ctr
K-/-
WT
K9/6
Counts
DHF - Fluorescence Intensity (FL2 channel)
H
% M.F.I.
K-/-
WT
K9/6
* P < 0.001; n=12

Fig 3. KRIT1 regulates steady-state levels of intracellular ROS. A–B) Qualitative detection of the steady-state levels of intracellular ROS by fluorescence microscopy. Wild-type (WT), KRIT1$^{-/-}$ (KRIT1$^{-/-}$) and KRIT1-transduced (Lv-KRIT1 9/6) MEFs grown under standard conditions were analyzed by fluorescence microscopy 20 min after the addition of the cell-permeable redox-sensitive fluorogenic probe DCFH-DA (A) or DHE (B). The images were taken with a fixed short exposure time and a high fluorescence intensity threshold value to avoid saturation, and are representative of several independent experiments. Notice that KRIT1$^{-/-}$ cells (panels b) showed significantly more intense fluorescent signals than WT cells (panels a), indicating that they contained higher levels of ROS. Conversely, ROS levels in KRIT1$^{-/-}$ cells were reduced to near WT levels upon KRIT1 re-expression by lentiviral infection (panels c). Scale bar represents 50 μm. **C–H.** Quantitative determination of the steady-state levels of intracellular ROS by FACS analysis. Wild-type (WT), KRIT1$^{-/-}$ (K$^{-/-}$) and three distinct KRIT1$^{-/-}$ cell populations re-expressing KRIT1 at low, medium and high levels, respectively [Lv-KRIT1 2/7 (K2/7), 10/6 (K10/6) and 9/6 (K9/6)], were grown under standard conditions and analyzed by FACS 20 min after the addition of the DCFH-DA (C–F) or DHE (G,H) probes. Representative flow cytometry profiles (C,E,G) and quantitative histograms of the mean fluorescence intensity (M.F.I.) values (D,F,H) of n≥5 independent FACS experiments are shown. M.F.I. values were normalized to spontaneous fluorescence of control cells untreated with the fluorogenic probes (Ctr) and expressed as percentage of KRIT1$^{-/-}$ (K$^{-/-}$) cells (± SD). *P<0.001 versus KRIT1$^{-/-}$ cells. Notice that KRIT1$^{-/-}$ cells displayed the highest content of intracellular ROS, whereas the re-expression of KRIT1 caused a significant, expression level-dependent decrease in intracellular ROS levels.

https://doi.org/10.1371/journal.pone.0223089.g001

Reference

1. Goitre L, Balzac F, Degani S, Degan P, Marchi S, Pinton P, et al. (2010) KRIT1 Regulates the Homeostasis of Intracellular Reactive Oxygen Species. PLoS ONE 5(7): e11786. https://doi.org/10.1371/journal.pone.0011786 PMID: 20668652