Ms. Ref. No.: EBIOM-D-20-00307-R2 (2020-May-22)
Title: A potent antagonist antibody targeting connexin hemichannels alleviates Clouston syndrome symptoms in mutant mice

Supplementary materials

Fig. S1. Sequence alignment of the two scFv-Fc antibodies used in this study.

1 = scFv-humanFc (abEC1.1)

2 = scFv-mouseFc (abEC1.1m)

: = similar

. = not similar

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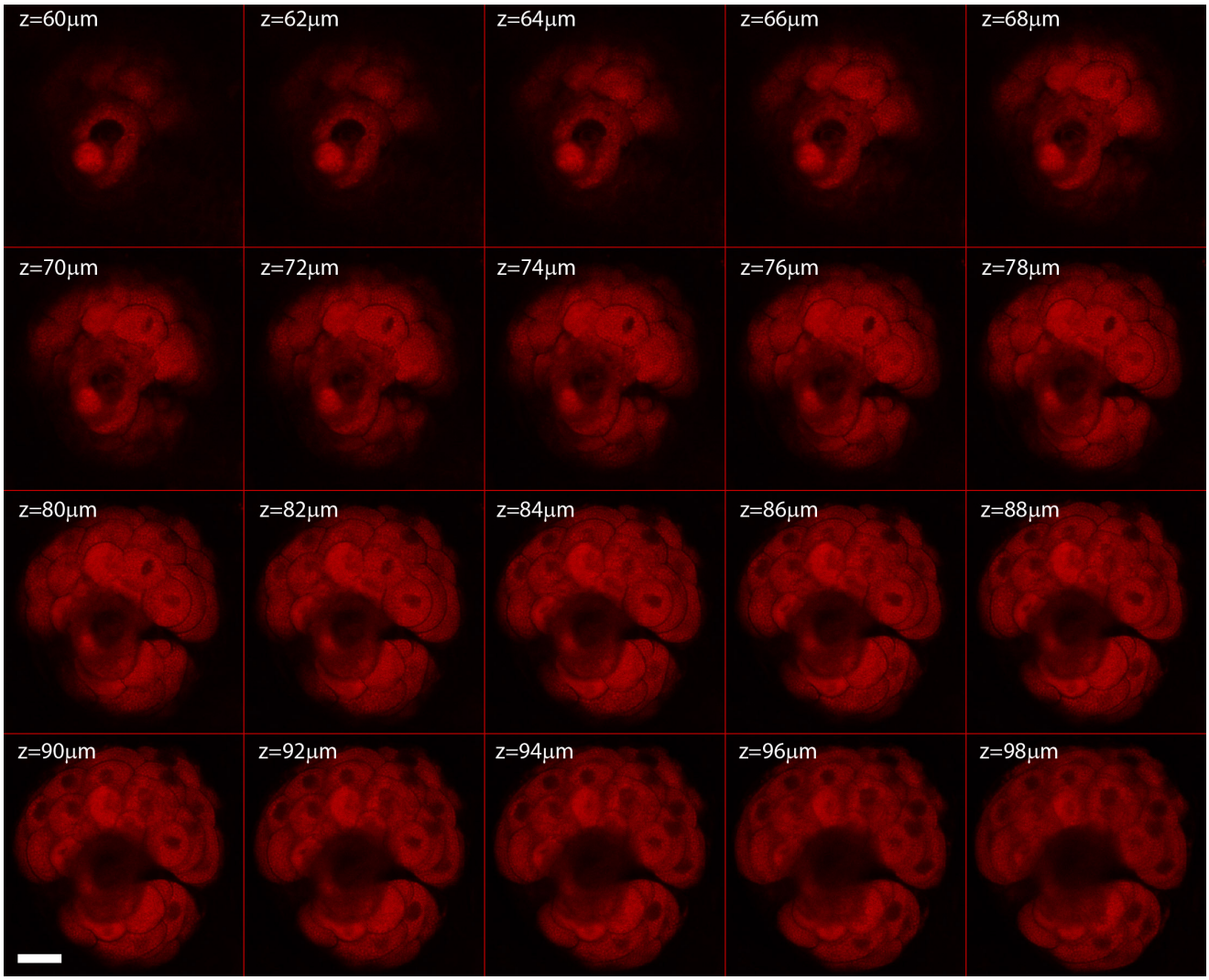

Fig. S2. Visualization of sebaceous glands in freshly explanted mouse skin by two-photon microscopy. Shown are representative two-photon confocal fluorescence images, captured at increasing depths from the surface (z=0), of the fluorescence signal from cells in a sebaceous gland of a $Cx30^{A88V/A88V}$ mutant mouse (allelic composition: $Gjb6^{tm2.2Kwi}/Gjb6^{tm2.2Kwi}$; EMMA ID: 07626; MGI ID: 5607781) stained with Nile red (Cat. No. 72485-100MG, Sigma-Aldrich/Merck; scale bar, 20 µm.

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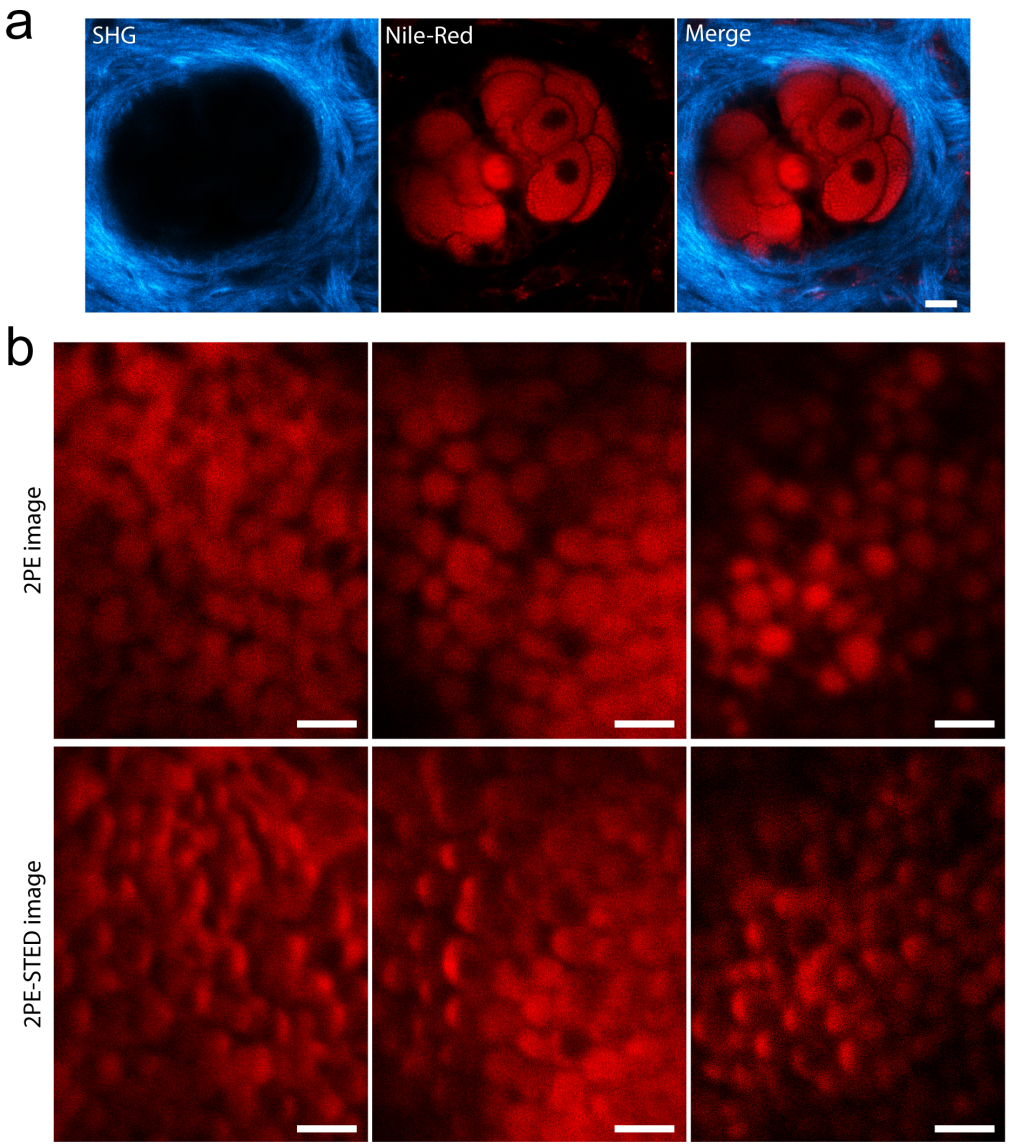

Fig. S3. High-resolution imaging of sebaceous glands by two-photon STED microscopy.
a, Representative image of the *xy* optical section of a Nile-red stained sebaceous gland more than 70 µm deep in the ear skin of a live mouse. Images were acquired using a 25× water immersion objective at an excitation wavelength of 1080 nm; each image is the averages of 20 consecutive frames and each frame was composed of 1024×1024 pixels (pixel dwell time = 1.367 ns). The cyan second harmonic generation signal (SHG) highlights collagen fibers. Scale bar, 10 µm. b, Comparison between two-photon excitation (2PE) and 2PE-STED images of sebocytes acquired 90 µm deep in mouse skin. Images were acquired using a 63× glycerol immersion objective with a pixel dwell time of 600 ns and line-averaged 32 times. Excitation wavelength was 920 nm, STED wavelength 775 nm. Scale bar, 2 µm.