



**Legend:** Average time plot of cold induced spike firing in mecano-cold C fibers in TREK-1<sup>+/+</sup> and TREK-1<sup>-/-</sup> mice.

Averaged histogram plots of C-fibers action potential frequency over time of TREK-1<sup>+/+</sup> (n=29; dark bars) and TREK-1<sup>-/-</sup> (n=10; blue bars) in response to application of cold SIF to the receptive field of the skin. Spikes are binned per °C and plotted according to the cold stimulus time plot shown on the bottom diagram.