

Supplementary Figure. Alternation between wake, non-REM sleep and REM sleep in rats administered saline (top panel and designated as Control) or rats with a triple lesion of three arousal neurons (lower panel). The figure represents a two hour segment of raw sleep-wake recording at the start of the night cycle. Each panel consists of a recording of the electroencephalogram (EEG), power of the EEG in the delta (0.3-4 Hz; pink) and theta bands (4-12 Hz; green), and integrated activity of the nuchal muscles (EMG). The sleep-wake state determination, based on the relationship of the EEG, power and EMG activity, is indicated at the bottom of each panel and marked with an H. Color coding in H is as follows: orange=wake; purple=non-REM sleep; red=REM sleep. As a group, rats with triple lesions were asleep during this time period compared with control rats, and overall their sleep-wake pattern was less fragmented. Scale bars in upper panel apply to both panels and are as follows: EEG=200 μ V; Power=3000 μ V²; EMG=300(arbitrary units).