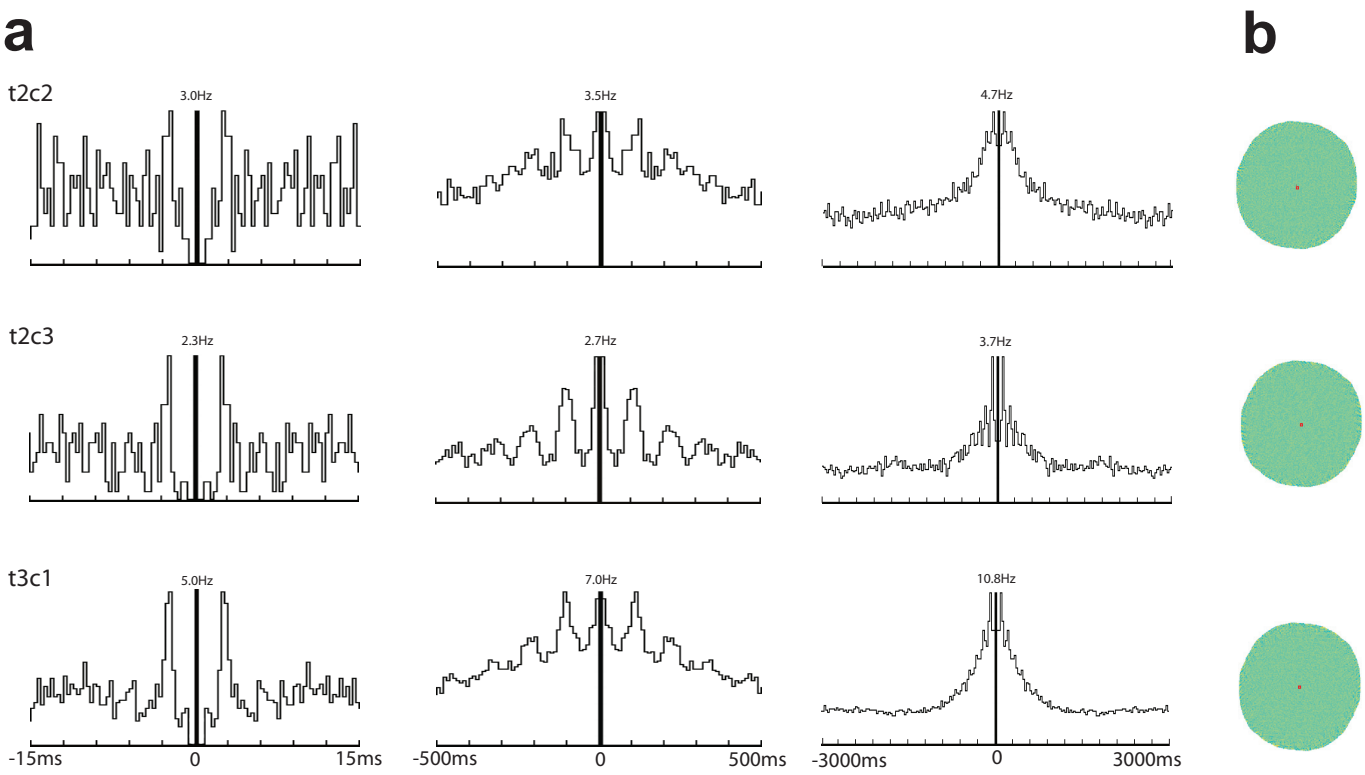
Supplementary Figure S1



Triangular firing grids reflect spatial patterns in neuronal spike activity. **a**,Temporal autocorrelation diagrams for the cells in Figure 1 showing firing patterns characteristic of entorhinal principal neurons. Autocorrelations are shown at three time scales to visualize refractory periods at 0-2ms and bursting at 3ms (left), theta modulation at 100-150 ms (middle), and lack of artifactual peridocity at higher intervals (right). **b**, Spatial autocorrelograms for scramled versions of the rate maps in Figure 1. As expected, each autocorrelogram has a sharp peak (perfect correlation) in the centre but is otherwise flat (zero correlation), verifying that recurring peaks in the autocorrelograms do not reflect artifacts in the analytical procedures. These control procedures support the conclusion that the grid structure originates from neurons rather than a spatially or temporally patterned technical artifact.