



Fig. S3 The sustained increase in extracellular adenosine was dependent on ENT activity not ATP release. **a** Behavioral protocol for reward and foot shock conditioning tasks after expression of hPMCA2w/b in V1 two week. **b** Expression of hPMCA2w/b in V1 partially reduced astrocytic activity, as indicated by calcium signaling using gCaMP detector during foot shock conditioning tasks ($n = 3/\text{group}$). **c & d** Measurement of extracellular ATP levels after 40 Hz flickering (left figure) and after electric shock in mice expressing GRAB_{ATP} (right figure) ($n = 6/\text{group}$). The data are presented as mean \pm SEM, $**P < 0.01$, $*P < 0.05$, Student's t-test; dipyridamole-treated group vs. vehicle group. **e & f** Administering dipyridamole immediately after light flickering also eliminated 40 Hz flickering-induced subsequent extracellular adenosine generation after light flashing cessation ($n = 6/\text{group}$). The data are presented as mean \pm SEM, $**P < 0.01$, $*P < 0.05$, Student's t-test; dipyridamole-treated group vs. vehicle group.