|  |  |  |
| --- | --- | --- |
| **Cortical regions** | VGAT+ PAG | PAG-USV |
| Prelimbic/infralimbic |  + |  + |
| Insular |  + |  - |
| M1/M2 |  + |  + |
| Cingulate |  + |  + |
| S1/S2 |  + |  + |
| Auditory |  + |  - |
| **Subcortical** | VGAT+ PAG | PAG-USV |
| Ventral pallidum |  + |  + |
| Lateral septum |  + |  + |
| BNST |  + |  + |
| Habenula |  + |  + |
| Zona incerta |  + |  + |
| **Hypothalamus** | VGAT+ PAG | PAG-USV |
| Preoptic |  + |  + |
| Anterior hypothalamus |  + |  + |
| Lateral hypothalamus |  + |  + |
| PVH |  + |  + |
| VMH |  + |  + |
| Posterior hypothalamus |  + |  + |
| Premammillary/mammillary |  + |  + |
| **Amygdala** | VGAT+ PAG | PAG-USV |
| Extended amygdala |  + |  + |
| Central amygdala |  + |  + |
| **Thalamus** | VGAT+ PAG | PAG-USV |
| PVT |  + |  + |