

Supplementary Materials

Table S1 Vital signs and propofol TCI target concentration (mean [95% confidence interval]) at different levels of sedation

Levels of sedation	propofol TCI target concentration (ug/ml)	HR (bpm)	MAP (mmHg)	SpO ₂ (%)	Respiratory rate (bpm)
Wakefulness	0	68±10	94±9	98±1	18±1
Mild sedation	1.46 (1.20; 2.00)	63±10	93±6	98±1	17±1
Deep sedation	2.51 (2.20; 3.00)	64±10	82±7	96±1	17±2
Recovery	0.60 (0.51; 0.64)	64±9	91±7	98±1	18±1

Table S2 Vital signs (mean ± standard deviation) under dexmetomidine sedation

Level of sedation	HR (bpm)	MAP (mmHg)	SpO ₂ (%)	Respiratory rate (bpm)
Wakefulness	67±12	90±12	99±0	15±2
Mild sedation	58±7	83±12	99±1	15±2
Recovery	58±8	77±9	99±1	15±2

Table S3: Comparisons of fALFF from different brain areas under propofol-induced 4 states (awake-mild, awake-deep, deep-recovery).

Peak MNI coordinate region	Number of Voxels	Peak MNI coordinate			Peak intensity
		x	y	z	
Awake-mild					
Cerebelum_Crus2_R (aal)	141	27	-81	-39	6.1995
Calcarine_R (aal)	1713	24	-54	6	-8.8418
Frontal_Sup_R (aal)	1637	27	24	51	7.8877
Frontal_Mid_L (aal)	598	-27	33	30	7.2261
Temporal_Sup_R (aal)	125	54	-18	6	-8.9202
Temporal_Sup_L (aal)	181	-60	-12	6	-6.0174
Occipital_Mid_R (aal)	51	30	-84	21	-5.1518
SupraMarginal_R (aal)	53	60	-39	42	5.4829
Paracentral_Lobule_L(aal)	51	0	-24	63	-5.1957
Awake-deep					
Cerebelum_6_R (aal)	93	27	-54	-33	-4.5694
Cerebelum_Crus2_L (aal)	70	-33	-84	-39	4.9624
Temporal_Sup_L (aal)	7505	-48	-24	6	-10.5199
Frontal_Mid_L (aal)	6248	-36	57	24	10.8324
Angular_R (aal)	122	45	-63	42	4.2202
Angular_L (aal)	81	-39	-69	51	3.664
SupraMarginal_L (aal)	52	-60	-39	33	4.0451
Precuneus_R (aal)	82	6	-66	39	4.327
Deep-recovery					
Temporal_Sup_L (aal)	10863	-48	-24	6	8.8451
Temporal_Inf_R (aal)	91	44	-8	-43	4.4736
Lingual_L (aal)	54	-30	-89	-17	-4.2395
Frontal_Med_Orb_L (aal)	5488	0	63	-9	-10.1904
Occipital_Inf_L (aal)	69	-21	-96	-6	-4.0176

Calcarine_R (aal)	131	15	-96	-3	-5.5986
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Table S4: Comparisons of fALFF from different brain areas under dexmedetomidine-induced 3 states (awake-mild, mild-recovery).

Peak MNI coordinate region	Number of Voxels	Peak MNI coordinate			Peak intensity
		x	y	z	
Awake-mild					
Cerebelum_Crus2_L (aal)	1318	-33	-75	-36	12.6093
Cerebelum_9_R (aal)	97	15	-54	-45	6.282
Temporal_Pole_Mid_R	52	33	16	-41	3.6698
Fusiform_R (aal)	9858	21	-45	-15	-8.7036
Frontal_Inf_Orb_L (aal)	3713	-24	18	-24	9.7649
Frontal_Inf_Orb_L (aal)	203	-45	18	-3	5.0361
Frontal_Inf_Orb_R (aal)	225	51	21	-3	5.8871
Mild-recovery					
Fusiform_L (aal)	264	-39	-48	-24	5.7481
Cerebelum_4_5_R (aal)	277	9	-45	-3	6.7608
Temporal_Mid_R (aal)	173	48	-66	3	5.2864
Occipital_Mid_L (aal)	234	-39	-78	15	7.8495

Table S5: Comparisons of ReHo from different brain areas under propofol-induced 4 states (awake-mild, awake-deep, deep-recovery).

Peak MNI coordinate region	Number of Voxels	Peak MNI coordinate x	y	z	Peak intensity
Awake-mild					
Cerebelum_Crus2_R (aal)	487	27	-81	-39	7.274
Cerebelum_Crus2_L (aal)	572	-39	-72	-39	9.5099
Lingual_L (aal)	1654	-15	-48	-6	-7.7575
Putamen_L(aal)	140	-18	15	7	-4.115
Insula_R (aal)	563	39	24	-3	6.6463
Putamen_R (aal)	66	27	0	-6	-5.3243
Frontal_Inf_Oper_L (aal)	60	-60	6	6	4.3596
Rolandic_Oper_R (aal)	223	42	-24	15	-6.678
Frontal_Mid_L (aal)	96	-33	60	3	4.0987
Frontal_Inf_Tri_L (aal)	61	-51	42	3	5.3651
Rolandic_Oper_L (aal)	180	-33	-30	18	-6.7517
Frontal_Sup_Medial_L (aal)	751	-6	60	21	5.2118
SupraMarginal_R (aal)	241	66	-33	33	5.1136
Occipital_Mid_L (aal)	357	-42	-78	36	5.9205
Frontal_Mid_L (aal)	53	-39	45	30	3.7189
Frontal_Mid_L (aal)	262	-45	24	48	4.8236
Precentral_R (aal)	495	15	-30	66	-5.9851
Frontal_Sup_R (aal)	119	27	15	57	4.8542
Precuneus_L (aal)	125	-12	-36	57	-5.6781
Awake-deep					
Cerebelum_Crus2_R (aal)	256	42	-69	-42	6.5643
Cerebelum_Crus1_L (aal)	233	-24	-84	-27	6.2324
Cerebelum_4_5_L (aal)	11149	-9	-45	-9	-9.3693
Frontal_Mid_R (aal)	6680	27	30	42	10.3657

Calcarine_L (aal)	163	-3	-87	-6	4.9085
Caudate_L (aal)	53	-18	28	3	5.0288
Precuneus_R (aal)	173	6	-51	21	4.6764
Parietal_Inf_L (aal)	292	-57	-39	48	5.6825
SupraMarginal_R (aal)	424	60	-24	42	5.9343
Deep-recovery					
Cerebellum_Crus2_R (aal)	77	42	-75	-45	-4.7521
Paracentral_Lobule_L (aal)	3440	-6	-36	60	7.0722
Temporal_Sup_R (aal)	2351	60	-24	3	7.9553
Calcarine_L (aal)	850	-3	-87	-6	-6.0171
Temporal_Inf_L (aal)	162	-42	-60	-9	4.6282
Cingulum_Ant_L (aal)	5763	-3	48	0	-9.4635
Temporal_Mid_L (aal)	68	-39	-63	12	5.7981
Precuneus_R (aal)	59	3	-48	18	-4.3492
SupraMarginal_R (aal)	128	57	-27	33	-6.9246
SupraMarginal_L (aal)	147	-63	-30	33	-4.7473
Cingulum_Mid_L (aal)	89	0	-33	33	-5.7346

Table S6: Comparisons of ReHo from different brain areas under dexmedetomidine-induced 3 states (awake-mild, mild-recovery).

Awake-mild					
Temporal_Pole_Mid_R (aal)	296	39	9	-42	5.5877
Caudate_L (aal)	2594	-12	24	0	8.776
Cerebellum_Crus1_L (aal)	2188	-30	-69	-30	11.2411
Temporal_Mid_R (aal)	137	66	-9	-15	4.8366
Fusiform_L (aal)	3832	-18	-42	-15	-7.7524
Fusiform_R (aal)	57	30	-15	-33	3.9087
Temporal_Mid_L (aal)	165	-60	-24	-12	6.3601
Frontal_Inf_Tri_L (aal)	67	-54	18	0	4.1638
Temporal_Sup_R (aal)	717	57	-6	-3	-8.5289
Thalamus_L (aal)	134	-12	-9	6	6.7153
Precuneus_L (aal)	523	-9	-69	36	7.0905
Angular_R (aal)	189	48	-51	27	6.0129
Angular_L (aal)	207	-42	-54	24	5.0357
Postcentral_R(aal)	2957	21	-34	62	-7.749
Parietal_Inf_L	59	-33	-74	52	4.433
Frontal_Mid_L (aal)	269	-24	30	54	6.3621
Mild-recovery					
Fusiform_L (aal)	275	-39	-51	-21	5.4812
Lingual_R (aal)	242	15	-42	-9	5.3272
Temporal_Inf_R (aal)	158	54	-66	-3	5.7858
Occipital_Inf_R (aal)	61	42	-87	-3	5.0121
Occipital_Mid_L (aal)	166	-42	-75	12	7.0326
Precentral_R (aal)	190	48	-12	45	4.6832
Postcentral_L (aal)	281	-36	-24	54	6.5163
Postcentral_R (aal)	85	21	-30	78	6.2313
Paracentral_Lobule_L (aal)	208	-12	-30	72	5.2837