

Table 1. Distribution of IBAT-sensory (H129) and IWAT-sympathetic (PRV152) neurons in the brain

	H129 neurons (%)	PRV152 neurons (%)	H129+PRV152 neurons (%)	Total
Medulla				
10N	5.83±2.27 (14.89)	5.00±1.65 (13.74)	19.50±4.88* [#] (71.37* [#])	30.33±8.56
12n	5.33±2.47 (13.02)	3.00±1.50 (4.48)	16.67±6.98 (82.50)	25.00±10.94
7N	12.17±3.79 (14.82)	16.17±3.95 (19.06)	62.83±18.63* [#] (66.12* [#])	91.17±25.35
AP	29.33±8.79 (16.75)	27.33±6.62 (16.16)	116.00±31.15* [#] (67.09* [#])	172.67±45.99
DPGi	3.60±1.06 (9.70)	4.40±0.84 (12.72)	27.40±5.81* [#] (77.58* [#])	35.40±7.53
Gi	80.67±21.16 (13.95)	71.33±13.70 (12.85)	393.83±54.55* [#] (73.20* [#])	545.83±85.99
GiA	19.50±7.15 (12.26)	19.67±4.72 (13.03)	118.83±27.27* [#] (74.71* [#])	158.00±37.08
GiV	12.00±3.22 (22.80)	10.50±3.44 (9.88)	62.75±20.97* [#] (67.32* [#])	85.25±27.06
IOBe	1.00±0.50 (2.00)	3.33±1.31 (18.67)	16.00±6.28 (79.33)	20.33±8.04
IOC	1.50±0.50 (10.00)	3.50±0.75 (43.33)	5.50±1.47 (46.67)	10.50±2.50
IOD	6.50±1.51 (25.00)	10.50±2.94 (27.27)	21.50±6.40 (47.73)	38.50±10.78
IOPr	6.67±1.82 (26.61)	4.00±1.03 (16.21)	16.67±4.80 (57.18)	27.33±6.50
IRt	93.33±22.11 (16.54)	83.17±14.65 (15.30)	367.00±51.16* [#] (68.16* [#])	543.50±81.41
LPGi	77.00±19.89 (30.22)	25.83±5.22* (10.54*)	150.00±28.40* [#] (59.24* [#])	252.83±50.48
LRt	37.00±15.68 (13.32)	36.67±10.46 (15.07)	180.17±58.42* [#] (71.61* [#])	253.83±82.78
LRtPC	2.33±0.75 (14.16)	1.67±0.54 (10.03)	7.67±2.17 (75.81)	11.67±3.45
MdD	52.00±15.89 (16.25)	41.00±8.16 (13.29)	211.50±31.47* [#] (70.46* [#])	304.50±44.51
MdV	30.50±11.82 (14.73)	26.67±7.50 (14.17)	122.50±19.09* [#] (71.10* [#])	179.67±31.26
MVeMC	5.00±1.93 (21.41)	2.67±1.33 (11.76)	11.83±4.28 (66.83* [#])	19.50±7.33
MVePC	5.50±1.28 (18.51)	3.67±0.95 (11.35)	20.00±2.68* [#] (70.14* [#])	29.17±4.33
PCRt	18.33±4.50 (20.74)	11.17±3.04 (12.00*)	56.33±11.74* [#] (67.26* [#])	85.83±18.79
PCRtA	15.67±2.73 (19.77)	11.00±2.14 (13.56)	56.00±10.79* [#] (66.67* [#])	82.67±14.96
PMn	24.67±4.50 (13.58)	26.00±3.72 (14.77)	128.00±13.33* [#] (71.65* [#])	178.67±17.09
Pr	8.83±3.65 (18.40)	5.67±1.54 (14.48)	23.83±3.89* [#] (67.12* [#])	38.33±8.83
PSol	1.00±0.21 (12.14)	1.00±0.33 (10.00)	6.50±1.38 (77.86)	8.50±1.83
RMg	20.83±2.21 (15.12)	25.50±3.18 (17.77)	104.17±22.69* [#] (67.11* [#])	150.50±26.09
ROb	9.83±2.09 (11.54)	13.33±1.76 (15.89)	60.00±5.76* [#] (72.57* [#])	83.17±8.59
RPa	37.50±4.34 (18.69)	36.50±2.87 (18.27)	126.33±9.19* [#] (63.04* [#])	200.33±12.53
RVL	26.50±7.72 (21.12)	22.00±3.88 (18.87)	68.17±8.52* [#] (60.01* [#])	116.67±19.12
NTS region	176.67±39.85 (17.11)	185.33±37.18 (18.18)	619.67±62.66* [#] (64.71* [#])	981.67±131.19
SolC	13.83±3.63 (17.84)	16.33±3.99 (20.20)	44.67±5.83* [#] (61.96* [#])	74.83±12.46
SolCe	5.67±1.65 (15.49)	6.83±2.18 (17.28)	27.33±8.21* [#] (67.23* [#])	39.83±11.19
SolDL	21.67±6.03 (17.11)	27.17±7.47 (21.26)	71.50±11.92* [#] (61.63* [#])	120.33±24.29
SolDM	6.67±2.35 (12.11)	5.33±1.76 (10.28)	24.67±8.21 (77.61)	36.67±12.30
SolG	19.40±6.18 (17.77)	21.00±5.34 (20.24)	61.20±13.17* [#] (61.99* [#])	101.60±23.57
SolI	3.00±1.21 (12.60)	3.83±1.38 (16.84)	15.83±4.54* [#] (70.56* [#])	22.67±6.89
SolIM	31.50±10.52 (17.66)	31.17±9.02 (17.67)	102.67±23.34* [#] (64.67* [#])	165.33±41.04

SolM	51.00±10.63 (17.50)	48.67±8.73 (17.26)	177.67±25.58* [#] (65.24* [#])	277.33±41.89
SolV	12.33±3.41 (19.53)	12.33±3.18 (17.55)	41.67±8.32* [#] (62.92* [#])	66.33±13.88
SolVL	18.17±3.50 (15.93)	18.83±3.81 (16.36)	75.00±7.83* [#] (67.71* [#])	112.00±11.54
sp5	1.00±0.42 (7.94)	0.75±0.34 (5.44)	6.75±2.05 (86.62* [#])	8.50±2.74
Sp5C	10.80±3.98 (20.20)	9.20±3.37 (16.90)	32.60±11.30 (62.90* [#])	52.60±18.32
Sp5I	0.50±0.17 (7.14)	0.00±0.00 (0.00)	4.00±0.99 (92.86)	4.50±1.15
Sp5O	1.50±0.45 (23.61)	0.00±0.00 (0.00)	4.50±1.32 (76.39* [#])	6.00±1.69
SpVe	1.00±0.49 (20.00)	0.00±0.00 (0.00)	3.00±0.73 (80.00* [#])	4.00±0.95
vsc	129.50±33.05 (26.68)	72.67±9.87 (16.17*)	254.83±31.48* [#] (57.15* [#])	457.00±72.52
Pons				
A5	29.25±7.27 (24.20)	21.75±5.33 (18.25)	67.00±15.37 (57.55)	118.00±27.38
CGPn	3.50±1.18 (27.01)	2.33±0.99 (15.92)	7.00±1.71 (57.07* [#])	12.83±3.46
DMTg	22.00±5.44 (23.50)	15.00±3.64 (16.36)	55.50±13.55 (60.14)	92.50±22.63
LC	51.00±12.37 (24.10)	31.00±7.31 (14.60*)	133.00±32.07* [#] (61.30* [#])	215.00±49.32
LDTg	27.80±8.17 (23.37)	21.40±5.84 (15.77)	83.60±26.36 (60.86* [#])	132.80±37.74
LPBC	8.80±2.73 (30.55)	5.60±2.29 (13.74)	19.60±6.90 (55.71* [#])	34.00±11.49
LPBD	6.80±3.37 (29.99)	4.40±2.22 (11.89)	14.80±7.20 (58.12)	26.00±12.71
LPBV	0.50±0.17 (8.33)	1.50±0.34 (25.00)	4.00±0.88 (66.67)	6.00±1.26
mlf	6.33±2.60 (16.44)	5.83±1.22 (17.85)	21.17±3.97* [#] (65.71* [#])	33.33±6.85
Mo5	5.50±1.33 (27.50)	5.00±1.31 (22.50)	10.50±2.63 (50.00)	21.00±5.26
MPB	8.20±4.54 (32.77)	5.60±2.75 (14.78)	14.40±6.38 (52.45* [#])	28.20±13.38
PnC	21.33±10.14 (12.81)	25.33±11.90 (17.05)	101.17±44.90 (70.14* [#])	147.83±66.82
PnO	22.83±4.28 (15.21)	24.33±3.87 (16.40)	117.83±40.29* [#] (68.39* [#])	165.00±47.19
PPTg	4.33±1.11 (16.29)	4.33±1.01 (16.24)	21.67±5.71 (67.47)	30.33±7.25
Pr5	10.67±2.94 (29.72)	7.00±1.71 (20.13)	18.67±5.04 (50.15)	36.33±9.02
rs	7.00±1.67 (23.63)	5.00±1.09 (17.38)	16.50±3.48 (58.99)	28.50±6.08
SubCD	11.00±2.55 (25.95)	9.75±2.35 (22.65)	23.50±5.95 (51.40* [#])	44.25±10.77
SubCV	10.00±2.42 (15.64)	10.00±2.87 (14.89)	50.50±14.36 (69.47* [#])	70.50±18.78
Midbrain				
3PC	2.00±1.33 (3.77)	2.75±1.47 (9.25)	12.25±5.71 (86.98* [#])	17.00±8.48
CnF	10.33±3.36 (14.72)	9.33±2.86 (13.59)	50.67±14.78 (71.69)	70.33±20.74
DpMe	22.50±7.11 (10.78)	31.17±11.09 (14.06)	151.17±48.84* [#] (75.16* [#])	204.83±66.81
DRD	1.25±0.54 (7.50)	1.75±0.65 (21.67)	6.50±2.64 (70.83*)	9.50±3.60
DRI	1.75±0.83 (9.58)	1.75±0.60 (10.89)	8.50±2.39 (79.53* [#])	12.00±3.59
ml	4.80±1.15 (22.23)	3.40±0.70 (15.59)	13.60±2.55* [#] (62.18* [#])	21.80±3.70
PAG region	60.83±19.34 (12.20)	70.50±16.08 (15.08)	339.17±76.85* [#] (72.72* [#])	470.50±111.02
DLPAG	2.33±1.05 (10.36)	2.33±0.99 (9.13)	14.83±4.71* [#] (80.51* [#])	19.50±6.65
DMPAG	14.67±6.30 (13.14)	15.50±4.96 (15.58)	70.67±21.80* [#] (71.28* [#])	100.83±32.40
LPAG	30.00±10.69 (11.56)	36.17±9.09 (15.13)	173.00±42.19* [#] (73.31* [#])	239.17±61.04
PAG	6.50±2.05 (10.47)	8.17±1.78 (14.13)	42.67±7.94* [#] (75.40* [#])	57.33±11.53
VLPAG	8.80±1.96 (14.94)	10.00±1.89 (17.42)	45.60±10.82* [#] (67.64* [#])	64.40±13.87
PN	4.33±1.05 (25.90)	3.33±0.76 (19.77)	9.33±2.23 (54.33)	17.00±3.81
R	2.00±0.42 (10.80)	2.00±0.67 (9.09)	15.00±3.17 (80.11)	19.00±4.08

Su3	6.40±1.78 (16.54)	7.80±2.03 (20.10)	26.20±8.13 (63.36* [#])	40.40±11.83
Su3C	5.17±1.54 (12.99)	6.67±1.89 (16.68)	23.17±7.46* [#] (70.33* [#])	35.00±10.83
VTA	16.00±7.59 (13.43)	13.00±4.71 (16.71)	54.80±20.89* [#] (69.86* [#])	83.80±32.97
Forebrain				
<i>Other forebrain</i>				
BSTMA	2.50±0.65 (23.57)	2.50±0.54 (20.71)	7.00±1.67 (55.72)	12.00±2.58
BSTMV	6.00±2.71 (35.90)	3.25±1.08 (28.65)	5.25±2.35 (35.45)	14.50±6.07
BSTMPL	1.50±0.34 (14.65)	1.00±0.33 (9.09)	7.50±1.59 (76.26)	10.00±2.12
LSV	1.00±0.40 (8.84)	1.40±0.31 (21.17)	7.00±1.89* [#] (69.99* [#])	9.40±2.33
VP	2.00±0.68 (12.15)	2.33±0.65 (20.48)	7.67±2.02 (67.37* [#])	12.00±3.32
<i>Preoptic area</i>				
AVPe	1.40±0.60 (12.80)	1.40±0.48 (13.56)	7.20±2.21* [#] (73.64* [#])	10.00±3.20
HDB	2.33±0.76 (10.78)	4.33±0.84 (24.65)	18.50±9.15 (64.57* [#])	25.17±10.64
LPO	15.33±4.72 (17.28)	13.50±2.68 (17.13)	49.33±9.59* [#] (65.59* [#])	78.17±15.35
LSI	8.00±5.89 (12.92)	4.60±3.27 (6.66)	13.40±6.06 (80.42* [#])	26.00±14.95
MnPO	3.80±2.20 (11.58)	3.00±1.34 (10.26)	15.80±6.67 (78.16* [#])	22.60±10.08
MPOL	5.00±1.41 (19.50)	4.75±1.51 (17.73)	17.50±5.68 (62.77* [#])	27.25±8.50
MPOM	13.83±2.21 (13.53)	15.83±1.87 (15.84)	75.17±13.61* [#] (70.63* [#])	104.83±17.21
SFO	0.00±0.00 (0.00)	1.50±0.87 (18.75)	3.50±0.87 (81.25)	5.00±1.73
SI	1.80±0.96 (16.88)	2.00±0.61 (21.49)	6.80±2.20 (61.63* [#])	10.60±3.44
VMPO	3.67±0.91 (14.11)	4.00±1.18 (13.30)	19.00±4.75 (72.59* [#])	26.67±6.80
VOLT	2.00±0.49 (25.00)	2.00±0.49 (25.00)	4.00±0.99 (50.00)	8.00±1.98
<i>Hypothalamus</i>				
AHA	3.25±1.97 (13.23)	3.25±1.40 (26.48)	7.75±3.43 (60.29*)	14.25±6.77
AHC	1.67±0.56 (20.76)	1.50±0.43 (18.02)	5.83±1.66* [#] (61.22* [#])	9.00±1.15
AHP	8.17±2.82 (14.30)	8.50±2.86 (14.51)	34.50±4.88* [#] (71.19* [#])	51.17±10.25
Arc	1.60±0.88 (7.18)	2.40±0.77 (14.27)	10.40±2.50* [#] (78.55* [#])	14.40±3.94
ArcLP	3.33±1.20 (14.12)	3.83±0.79 (18.53)	11.33±2.74* [#] (67.35* [#])	18.50±4.46
ArcMP	4.33±1.20 (13.80)	4.50±1.06 (14.66)	24.00±6.14* [#] (71.54* [#])	32.83±8.12
DM	10.00±2.13 (13.46)	12.33±2.44 (15.43)	60.67±14.78* [#] (71.11* [#])	83.00±18.25
DMC	1.00±0.33 (8.33)	1.50±0.34 (33.33)	4.50±1.31 (58.34)	7.00±1.96
DMD	1.00±0.33 (6.25)	2.00±0.49 (26.04)	6.50±1.80 (67.71)	9.50±2.61
DMV	6.50±1.42 (15.55)	6.00±1.48 (14.22)	29.00±6.16 (70.23)	41.50±8.76
DTM	3.67±0.83 (24.22)	4.67±1.33 (20.81)	12.00±3.38 (54.97)	20.33±5.46
LA	4.33±3.20 (6.01)	7.17±4.24 (21.78*)	24.00±13.35 (72.21* [#])	35.50±20.73
LH	46.00±12.47 (13.02)	49.83±12.68 (14.19)	259.83±60.00* [#] (72.79* [#])	355.67±82.80
MPA	34.50±8.07 (14.97)	40.33±8.48 (17.64*)	152.67±32.11* [#] (67.39* [#])	227.50±48.48
PVH region	66.17±11.85 (16.45)	80.00±12.39 (20.13)	254.67±40.92* [#] (63.42* [#])	400.83±63.47
PaAP	3.00±0.82 (24.17)	2.00±0.42 (15.00)	8.50±2.01 (60.83)	13.50±2.87
PaLM	9.83±2.30 (16.33)	14.17±3.99 (22.13)	37.83±8.63* [#] (61.54* [#])	61.83±14.23
PaMM	20.80±5.47 (18.73)	25.60±7.55 (21.86)	67.60±19.15* [#] (59.41* [#])	114.00±32.09
PaMP	18.00±3.21 (17.33)	22.00±2.56 (22.16)	64.00±11.85* [#] (60.51* [#])	104.00±16.17
PaPo	17.67±3.36 (14.90)	17.67±2.26 (15.86)	85.17±14.45* [#] (69.24* [#])	120.50±18.64

PaV	3.50±1.09 (17.88)	6.25±2.70 (24.93)	12.75±4.66 (57.19)	22.50±8.32
PH	9.83±4.01 (12.62)	13.50±5.13 (16.14)	60.17±19.43* [#] (71.24* [#])	83.50±28.23
PMV	2.00±0.49 (38.64)	1.00±0.33 (9.09)	3.50±0.98 (52.27)	6.50±1.80
SCh	2.50±0.61 (10.09)	6.75±2.19 (22.45)	24.00±8.75 (67.46*)	33.25±11.15
SChVL	4.00±1.33 (8.16)	4.50±1.31 (18.16)	18.50±5.41 (73.68)	27.00±8.04
TC	18.00±5.98 (14.29)	19.67±6.42 (15.28)	84.33±19.76* [#] (70.43* [#])	122.00±31.89
VMHC	2.33±1.17 (9.33)	1.33±0.67 (5.33)	7.67±2.23 (85.34)	11.33±3.97
VMHDM	1.50±1.00 (7.89)	1.00±0.49 (7.52)	6.25±1.60 (84.59* [#])	8.75±2.89
VMHVL	0.67±0.33 (5.13)	0.67±0.33 (5.13)	4.00±1.44 (89.74)	5.33±2.09
<i>Thalamus</i>				
LHbL	0.00±0.00 (0.00)	0.75±0.34 (12.14)	5.00±1.41 (87.86* [#])	5.75±1.54
PF	0.00±0.00 (0.00)	0.50±0.17 (5.00)	6.50±1.51 (95.00)	7.00±1.67
PrC	3.67±1.74 (7.42)	4.00±1.75 (12.71)	24.67±7.27* [#] (79.87* [#])	32.33±10.59
pv	1.50±0.76 (6.08)	2.50±0.62 (11.39)	16.00±3.84* [#] (82.53* [#])	20.00±4.95
SPF	1.50±0.50 (4.41)	3.50±0.98 (21.32)	14.00±4.10 (74.27)	19.00±5.57
ME	3.25±1.80 (11.03)	3.00±1.48 (11.03)	9.75±2.78 (77.94* [#])	16.00±5.50

Data are expressed as means ± SEM (n=6)

* $p < 0.05$ vs. H129, [#] $p < 0.05$ vs. PRV152

10N, dorsal motor nucleus of vagus; 12n, root of hypoglossal nerve; 3PC, oculomotor nucleus; 7N, facial nucleus; A5, noradrenaline cells; AHA, anterior hypothalamic area, anterior part; AHC, anterior hypothalamic area, central part; AHP, anterior hypothalamic area, posterior part; AP, area postrema; Arc, arcuate hypothalamic nucleus; ArcLP, arcuate hypothalamic nucleus, lateroposterior part; ArcMP, arcuate hypothalamic nucleus, medial posterior part; AVPe, anteroventral periventricular nucleus; BSTMA, bed nucleus of the stria terminalis, medial division, anterior part; BSTMV, bed nucleus of stria terminalis, medial division, ventral part; BSTMPL, bed nucleus of the stria terminalis, medial division, posterolateral part; CGPn, central gray of the pons; CnF, cuneiform nucleus; DLPAG, dorsolateral periaqueductal gray; DM, dorsomedial hypothalamic nucleus; DMC, dorsomedial hypothalamic nucleus, compact part; DMD, dorsomedial hypothalamic nucleus, dorsal part; DMPAG, dorsomedial periaqueductal gray; DMTg, dorsomedial tegmental area; DMV, dorsomedial hypothalamic nucleus, ventral part; DPGi, dorsal paragigantocellular nucleus; DpMe, deep mesencephalic nucleus; DRD, dorsal raphe nucleus, dorsal part; DRI, dorsal raphe nucleus, interfascicular part; DTM, dorsal tuberomammillary nucleus; Gi, gigantocellular reticular nucleus; GiA, gigantocellular reticular nucleus, alpha part; GiV, gigantocellular reticular nucleus, ventral part; HDB, nucleus of the horizontal limb of the diagonal band; IOBe, inferior olive, beta subnucleus; IOC, inferior olive, subnucleus C of medial nucleus; IOD, inferior olive, dorsal nucleus; IOPr, inferior olive, principal nucleus; IRT, intermediate reticular nucleus; LA, lateroanterior hypothalamic nucleus; LC, locus coeruleus; LDTg, laterodorsal tegmental nucleus; LH, lateral hypothalamic area; LHbL, lateral habenular nucleus, lateral part; LPAG, lateral periaqueductal gray; LPBC, lateral parabrachial nucleus, central part; LPBD, lateral parabrachial nucleus, dorsal part; LPBV, lateral parabrachial nucleus, ventral part; LPGi, lateral paragigantocellular nucleus; LPO, lateral preoptic area; LRt, lateral reticular nucleus; LRtPC, lateral reticular nucleus, parvicellular part; LSI, lateral septal nucleus, intermediate part; LSV, lateral septal nucleus, ventral part; MdD, medullary reticular nucleus, dorsal part; MdV, medullary reticular nucleus, ventral part; ME, median eminence; ml, medial lemniscus; mlf, medial longitudinal fasciculus; MnPO, median preoptic nucleus; Mo5, motor trigeminal nucleus; MPA, medial preoptic area; MPB, medial parabrachial nucleus; MPOL, medial preoptic nucleus, lateral part; MPOM, medial preoptic nucleus, medial part; MVeMC, medial vestibular nucleus, magnocellular part; MVePC, medial vestibular nucleus, parvicellular part; NTS, nucleus of the solitary tract; PaAP, paraventricular hypothalamic nucleus, anterior parvicellular part; PAG, periaqueductal gray; PaLM, paraventricular hypothalamic nucleus, lateral magnocellular part; PaMM, paraventricular hypothalamic nucleus, medial magnocellular part; PaMP, paraventricular hypothalamic nucleus, medial parvicellular part; PaPo, paraventricular hypothalamic nucleus, posterior part; PaV, paraventricular hypothalamic nucleus, ventral part; PCRt, parvicellular reticular nucleus; PCRtA, parvicellular reticular nucleus, alpha part; PF, parafascicular thalamic nucleus; PH, posterior hypothalamic area; PMn, paramedian reticular nucleus; PMV, premammillary nucleus, ventral

part; PN, paranigral nucleus; PnC, pontine reticular nucleus, caudal part; PnO, pontine reticular nucleus, oral part; PPTg, pedunclopontine tegmental nucleus; Pr, prepositus nucleus; Pr5, principal sensory trigeminal nucleus; PrC, precommissural nucleus; PSol, parasolitary nucleus; pv, periventricular fiber system; PVH, paraventricular hypothalamic nucleus; R, red nucleus; RMg, raphe magnus nucleus; ROb, raphe obscurus nucleus; RPa, raphe pallidus nucleus; rs, rubrospinal tract; RVL, rostroventrolateral reticular nucleus; SCh, suprachiasmatic nucleus; SChVL, suprachiasmatic nucleus, ventrolateral part; SFO, subfornical organ; SI, substantia innominata; SolC, nucleus of the solitary tract, commissural part; SolCe, nucleus of the solitary tract, central part; SolDL, solitary nucleus, dorsolateral part; SolDM, nucleus of the solitary tract, dorsomedial part; SolG, nucleus of the solitary tract, gelatinous part; SolI, nucleus of the solitary tract, interstitial part; SolIM, nucleus of the solitary tract, intermediate part; SolM, nucleus of the solitary tract, medial part; SolV, solitary nucleus, ventral part; SolVL, nucleus of the solitary tract, ventrolateral part; sp5, spinal trigeminal tract; Sp5C, spinal trigeminal nucleus, caudal part; Sp5I, spinal trigeminal nucleus, interpolar part; Sp5O, spinal trigeminal nucleus, oral part; SPF, subparafascicular thalamic nucleus; SpVe, spinal vestibular nucleus; Su3, supraoculomotor periaqueductal gray; Su3C, supraoculomotor cap; SubCD, subcoeruleus nucleus, dorsal part; SubCV, subcoeruleus nucleus, ventral part; TC, tuber cinereum area; VLPAG, ventrolateral periaqueductal gray; VMHC, ventromedial hypothalamic nucleus, central part; VMHDM, ventromedial hypothalamic nucleus, dorsomedial part; VMHVL, ventromedial hypothalamic nucleus, ventrolateral part; VMPO, ventromedial preoptic nucleus; VOLT, vascular organ of the lamina terminalis; VP, ventral pallidum; vsc, ventral spinocerebellar tract; VTA, ventral tegmental area