Brain Structure & Function

Differential distribution of phospholipase C beta isoforms and diaglycerol kinase beta in rodents cerebella corroborates the division of unipolar brush cells into two major subtypes

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Supplementary Table 1. Densities (N/ 0.01 mm^2) of mGluR1α^+ and CR$^+$ UBC in 25 μm-thick coronal sections

			Zones midline ↔ lateral						
	Cerebellar lobules	UBC type	1	2	3	4	5	6	7
Rat	IXa	mGluR1α^+	1.4 ± 1.9	2.2 ± 1.4	1.4 ± 0.7	1.5 ± 0.2	1.6 ± 0.3	1.7 ±0.9	
N=2		Calretinin$^+$	0.4 ± 0.02	0.4 ± 0.02	0.4 ± 0.02	0.4 ± 0.02	0.4 ± 0.02	0.4 ± 0.02	
	IXc/d*; r2	mGluR1α^+	10.6 ± 1.8	4.8 ± 1.4	2.8 ± 0.7	3.6 ± 0.3	8.1 ± 2.0	2.3 ± 1.0	6.1 ± 2.2
		Calretinin$^+$	**9.1** ± 0.3	4.8 ± 1.31	3.7 ± 0.7	2.9 ± 0.8	5.4 ± 1.0	3.1 ± 0.2	2.6 ± 0.1
	X, dorsal leaflet	mGluR1α^+	13.8 ± 0.5	10.9 ± 2.1	3.5 ± 1.9	3.2 ± 1.4	5.1 ± 1.5	7.4 ± 2.4	7.6 ± 0.8
		Calretinin$^+$	6.3 ± 0.1	4.9 ± 0.3	3.0 ± 0.3	2.5 ± 0.6	2.6 ± 0.1	3.4 ± 0.3	3.0 ± 0.1
	X, ventral leaflet	mGluR1α^+	**18.8** ± 0.2	18.4 ± 2.1	8.8 ± 2.1	8.3 ± 1.7	8.7 ± 0.4	9.8 ± 1.7	9.3 ± 0.8
		Calretinin$^+$	3.1 ± 0.6	5.0 ± 0.9	3.9 ± 0.7	3.5 ± 0.7	3.1 ± 1.5	3.9 ± 0.7	2.7 ± 0.6
Mouse	IXa	mGluR1α^+	5.5 ± 0.03	2.6 ± 0.4	3.7 ± 0.3	1.3 ± 0.5	1.6 ± 1.2	1.3 ±0.4	
N=2		Calretinin$^+$	0.2 ± 0.1	0.2 ± 0.1	0.2 ± 0.1	0.2 ± 0.1	0.2 ± 0.1	0.2 ± 0.1	
	IXc; r2	mGluR1α^+	**32.2** ± 0.1	14.1 ± 0.4	8.3 ± 1.5	6.4 ± 3.0	10.9 ± 1.7	3.9 ± 1.8	4.1 ± 1.0
		Calretinin$^+$	14.6 ± 1.8	5.6 ± 0.1	5.1 ± 3.3	3.8 ± 1.4	10.5 ± 2.9	4.7 ± 1.1	7.7 ± 3.3
	X, dorsal leaflet	mGluR1α^+	**12.1** ± 1.9	12.1 ± 1.9	7.5 ± 1.5	8.5 ± 1.1	11.7 ± 0.7	8.5 ± 2.5	
		Calretinin$^+$	12.5 ± 0.4	10.4 ± 0.1	5.8 ± 0.3	5.8 ± 1.9	5.9 ± 0.6	10.2 ± 0.9	
	X, lateral zone	mGluR1α^+							18.8 ± 0.9
		Calretinin$^+$							9.0 ± 0.5
	X, ventral leaflet	mGluR1α^+	17 ± 1.7	19.4 ± 2.6	14.3 ± 0.1	10.6 ± 2.3	14.3 ± 2.7	13.9 ± 0.1	
		Calretinin$^+$	3.8 ± 1.4	7.4 ± 0.6	5.0 ± 0.9	4.9 ± 1.4	5.3 ± 0.7	10.8 ± 3.1	

Folial medio-lateral zones in rat and mouse cerebella are illustrated in Fig.10 and Fig.11, respectively.

*In some rat specimens a shallow indentation subdives the last folia of uvula into IXc and IXd.

Supplementary Table 2. Densities (N/ 0.01 mm^2) of mGluR1$\alpha^+$and CR^+ UBC in 25 μm-thick sagittal cerebellar sections.

		Medial sections		Lateral sections	
	Cerebellar lobules / regions	mGluR1α^+	Calretinin$^+$	mGluR1α^+	Calretinin$^+$
Rat	VIII	0.9 ± 0.1	0.4 ± 0.16	1.2 ± 0.2	0.1 ± 0.1
N=2	IXa	3.1 ± 0.1	1.0 ± 0.54	3.0 ± 0.8	0.4 ± 0.3
	Transition zone between IXa and IXb (UBC void area)	0.9 ± 0.1	0.2 ± 0.01	1.0 ± 0.03	0.1 ± 0.02
	IXb & IXc;r1	8.0 ± 3.0	1.3 ± 0.01	4.2 ± 0.6	0.4 ± 0.2
	IXc/d*; r2	10.8 ± 0.3	2.8 ± 0.1	6.0 ± 1.2	2.4 ± 0.4
	IXc/d*; r3	10.9 ± 1.4	8.9 ± 0.03	5.9 ± 0.9	6.1 ± 0.9
	Transition zone between IXc/d and X (tz)	16.0 ± 2.2	11.7 ± 0.01	5.2 ± 0.7	**6.3** ± 2.0
	X, dorsal leaflet	12.2 ± 0.5	7.2 ± 0.1	5.8 ± 0.6	6.1 ± 1.9
	X, ventral leaflet	**20.3** ± 2.7	6.0 ± 0.5	**9.6** ± 1.5	5.1 ± 0.2
	X, medullary vellum border (mb)	11.4 ± 0.6	4.1 ± 1.2	**9.7** ± 2.6	1.6 ± 0.3
Mouse	VIII	1.4 ± 0.6	0.1 ± 0.0	1.4 ± 1.0	0.03 ± 0.03
N=3	IXa	1.9 ± 0.1	0.1 ± 0.0	1.6 ± 0.1	0.03 ± 0.03
	Transition zone between IXa and IXb (UBC void area)	0	0	0	0
	IXb & IXc;r1	6.7 ± 3.0	0.8 ± 0.2	6.6 ± 0.8	1.2 ± 0.5
	IXc;r2	12.0 ± 5.9	2.9 ± 0.6	7.9 ± 1.3	**5.5** ± 3.3
	Transition zone between IXc and X (tz)	**25.5** ± 5.5	**14.0** ± 3.5	8.4 ± 2.1	7.0 ± 4.0
	X, dorsal leaflet	10.5 ± 0.9	5.3 ± 0.3	8.2 ± 2.6	4.2 ± 1.7
	X, ventral leaflet	23.4 ± 4.8	3.7 ± 1.5	**12.0** ± 3.1	4.7 ± 0.3
	X, medullary vellum border –(mb)	20.8 ± 6.3	10.8 ± 4.5	7.1 ± 3.2	**5.4** ± 4.6

Medial sections were chosen at a distance 0-150 μm (rat) / 0-70 μm (mouse) from the midline. Lateral sections were chosen at a distance 900-1200 μm (rat) / 600-700 μm (mouse) from the midline. *In some rat specimens a shallow indentation subdives the last folia of uvula into IXc and IXd.

Supplementary Table 3. Densities (N / 0.01 mm^2) of mGluR1α^+ and CR^+ UBC in 25 μm-thick coronal cerebellar sections.

	Cerebellar lobules / regions	mGluR1α^+	Calretinin$^+$
Rat	Flocculus	6.7 ± 1.7	2.9 ± 0.8
N=2	Paraflocculus –vPFl;r1	22.4 ± 1.3	12.7 ± 1.4
	Paraflocculus –vPFl;r2	7.9 ± 0.04	1.5 ± 0.02
	Paraflocculus – r3 & r4	1.0 ± 0.1	0.1 ± 0.01
Mouse	Flocculus	17.2 ± 1.6	2.3 ± 0.2
N=2	Transition zone between paraflocculus and flocculus (tz) – includes vPFL;r1	26.5 ± 1.1	11.8 ± 0.7
	Paraflocculus – vPFl;r2	11.6 ± 0.5	0.1 ± 0.1
	Paraflocculus –r3	3.8 ± 1.2	0.1 ± 0.1
	Paraflocculus –r4	0.9 ± 0.01	0.1 ± 0.1