

SuppTable 1. Lists of genes presented in ZEBra and their differential regulation in the arcopallial domains and subdomains described in Table 1.

Whole Arco. (A)		Anterior Arco. (AA)				Dorsal Arco. (AD)				Posterior Arco. (AP)		Intermediate Arco. (AI)		Ventral Arco (AV)	
A	+/-	AAc/AArl	+/-	Medial Arco. (AM)		AD	+/-	APv	+/-	AI	+/-	AV	+/-		
				AMVi	+/-	AMD	+/-								
AKR1D1	-	GABRB3	-	CACNA1E	-	FAM163B	-	PLXNC1	-	GABRD	-	LGI1	-	AQP1	+
ARHGDIB	-	IL1RAPL2	-	CPNE2	-	ADRA1D	+	TBR1	-	LMO3	-	NTS	-	ARHGDIB	+
BAIAP2	-	KCNAB2	-	GLRA3	-	AQP1	+	ARHGDIB	+	NTS	-			CACNA1E	+
C11ORF87	-	CAMK2D	+	KCNA6	-	CAMKK1	+	ATP2A3	+	ADCYAP1	-	Ald	+/-	CNTN4	+
CACNA2D1	-	CHRNA4	+	KIF26B	-	CDH4	+	CACNA1E	+	ARHGDIB	+	ABCG4	-	KCNA6	+
CACNB4	-	CNTN4	+	PLD1	-	CHRM4	+	CBLN4	+	CACNA2D3	+	ADRA1D	-	LMO1	+
CACNG5	-	CPNE2	+	PLXNC1	-	CRHR1	+	CD99L2	+	CAMKK1	+	ATP2A3	-	NTS	+
CAMKK1	-	DHCR24	+	PTPRZ1	-	NEUROD6	+	CRHR1	+	HPCAL1	+	CACNA1E	-	SLC6A7	+
CRHR1	-	FNDC9	+	ARHGDIB	+	NTS	+	DHCR24	+	KCTD12	+	CACNB2	-		
DACH1	-	GLRA4	+	DAPK1	+	SYNGR3	+	GABRD	+	MAOB	+	CACNG3	-		
DRD7	-	GRIK3	+	FAM163B	+			HPCAL1	+	NETO1	+	CDH4	-		
EPHA4	-	HTATIP2	+	FOSL2	+			HTR2A	+	ORAI2	+	CPNE2	-		
FNBP1	-	ID2	+	KCMF1	+			KCNA6	+	PLD1	+	DHCR24	-		
GRM1	-	KCNA6	+	KCND2	+			KCNT1	+	SLC6A7	+	FAM163B	-		
HPCAL1	-	KCNK12	+	KCTD12	+			KCTD12	+			GDA	-		
ID2	-	KCNT1	+	MAOA	+			MAOB	+	APd	+/-	GPM6A	-		
KCNC2	-	KCTD16	+	PPM1E	+			NETO1	+	FOSL2	-	GRIN2B	-		
KCNIP1	-	KCTD20	+	RGS12	+			NTS	+	ARHGDIB	+	HTR1B	-		
KCNS2	-	KIF21A	+	RHOB	+			PLD1	+	CACNA1E	+	JPT1	-		
KCTD16	-	LMO1	+	SLC6A6	+			QSOX1	+	CAMKK1	+	KCNA6	-		
LMO1	-	NETO1	+	SV2B	+			RASGRF2	+	CDH4	+	KCNF1	-		
NECTIN3	-	NTS	+	VIP	+			SEMA3E	+	CRHR1	+	KCTD3	-		
NTS	-	RGS12	+					SLC6A7	+	GABRD	+	LGI1	-		
PLPP4	-	RHOB	+	AMVI	+/-			CALB2	+	HPCAL1	+	NEGR1	-		
RASGRF2	-	RTN4R	+	CACNB2	-			CCK	+	MAOB	+	NRXN1	-		
RGS12	-	ZEB2	+	CRHR1	-					NTS	+	NTS	-		
RTN4RL1	-			PLXNC1	-					ORAI2	+	PAK6	-		
SERTM1	-	AArm	+/-	PTPRZ1	-					PLD1	+	PLD1	-		

SOX4	-	None	CAMK2D	+	ZEB2	+	PLXNC1	-
WWC1	-		FAM163B	+			PRKAR1B	-
CADPS2	+	AArl	FNDC9	+			SCN3B	-
FOSL2	+	SLC6A7	ID2	+			SEPT12	-
GABRB3	+		KCTD12	+			SLC6A7	-
LMO3	+	AAv	MAOA	+			SLIT1	-
P4HA2	+	ARHGDIB	NTS	+			SNCA	-
SH3BP5	+	SLC6A7	RGS12	+			SYNGR3	-
		CAMK2D	SLC24A2	+			UNC5A	-
		FNDC9					WASF1	-
		ID2	AMVm	+/-			ADAM23	+
		KCNK12	GABRA5	+			ANXA6	+
		RGS12	MAOB	+			ATP2B2	+
			AMVc	+/-			CABP1	+
			KCMF1	-			CALN1	+
			ID2	+			CAMTA1	+
			KCNA6	+			CD99L2	+
			KIF26B	+			CNTNAP2	+
			MGAT4C	+			KCNC1	+
			PLPP4	+			NEFM	+
			TMEM74	+			PLS3	+
							QSOX1	+
							RCAN2	+
							RGS4	+
							SCN1A	+
							SCN8A	+
							TBR1	+
							RA	+/-
							ABCG4	-
							ADCYAP1	-
							ADRA1D	-
							ARHGDIB	-

ARPC5	-
ATP2A3	-
B3GNT2	-
BAIAP2	-
BTBD10	-
CACNA1E	-
CACNA1H	-
CACNB2	-
CAMK2A	-
CDH4	-
CDH8	-
CHRM4	-
CHRNA4*	-
CNTN5	-
CPNE2	-
CRHR1	-
CRHR2	-
DHCR24	-
DOK4	-
DPP6	-
FAM163B	-
GABRB3	-
GAP43*	-
GDA	-
GPM6A	-
GRIN2B	-
GRIN3A	-
GRK3	-
IL1RAPL2	-
JPT1	-
KCNA6	-
KCNF1	-
KCNIP1	-

KCNJ6	-
KCNK12	-
KCNK15	-
KCNS2	-
KCNT2	-
KCTD12	-
KCTD3	-
KIF26B	-
LINGO1	-
MAP4	-
MGAT4C	-
NECAB2	-
NEGR1	-
NRXN1	-
P4HA2	-
PAK6	-
PLD1	-
PLXNA1	-
PLXNC1	-
PRKAR1B	-
PTPRN2	-
PTPRU	-
PTPRZ1	-
RELN	-
RIMS4	-
RTN4R	-
SCN2A	-
SEPT12	-
SEPT6	-
SH3BP5	-
SLC6A7	-
SLC8A1	-
SLIT1	-

SNCA	-
STK26	-
SYBU	-
SYN3	-
SYNGR3	-
TNFAIP8L3	-
TOB1	-
TRIB2	-
UNC5A	-
VIP	-
WASF1	-
ACKR3	+
ADAM23	+
ANXA6	+
APOH	+
ASS1*	+
ATP2B2	+
CABP1	+
CACNA2D2	+
CAMTA1	+
CD99L2	+
CDH9*	+
CNTNAP2	+
DCN*	+
DENND2A*	+
FLRT2*	+
GLRA4	+
GRM3	+
GSTA4*	+
HTR1B	+
IGF1	+
KCNAB1	+
KCNAB2	+

KCNC1	+
KCTD16	+
KCTD20	+
MPZL1	+
MT3*	+
NEFL	+
NEFM	+
PLS3	+
PLXNA4	+
QSOX1	+
RCAN2	+
RGS4	+
RHOB	+
ROBO1	+
SAP30L	+
SCN1A	+
SCN8A	+
SELENOP2 [†]	+
SLC24A2	+
SLC4A4	+
SYNJ1*	+
TMRA*	+
UCHL1	+
UGT8	+
UCHL1	+
UGT8	+

* Evaluated in RA, but not AId

Air	+/-
ABCG4	-
CDH8	-
FAM163B	-
GAP43	-

GDA	-
GPM6A	-
LGI1	-
NTS	-
PRKAR1B	-
SNCA	-
UNC5A	-
ANXA6	+
ARGHD1B	+
ATP2A3	+
CD99L2	+
KCNS1	+
Alrv	+/-
CPNE2	-
LGI1	-
NTS	-
SNCA	-
CAMKK1	+
CXCL14	+
DCX	+
DHCR24	+
LMO1	+
NETO1	+

SuppTable 2. Proposed correspondences between zebra finch AM domains described here and nucleus Taenia (Tn/TN/TnA) in the literature

Species (analysis)	AMD	AMV	Comment	Citation
Canary (Cytoarchitectonics)	Labeled Tn in plates 23-24 above the OM	Labeled Tn in plates 35-29 below the OM	Atlas has two structures labeled Tn; one is above and one is below the OM.	Stokes et al., 1974
Zebra finch (CYP19A1 mRNA)	Dorsal part of structure labeled Tn in Fig. 5D	Labeled Tn in Fig. 5D	In situ data presented schematically. Border drawn medial to RA erroneously excludes dorsal AMD from the arcopallium.	Shen et al., 1995
Zebra finch (CYP19A1 protein)	Labeled Tn in Fig. 1F	Labeled Tn in Fig. 1G	ICC data presented schematically; two structures labeled Tn.	Balthazart et al., 1996
Zebra finch (CYP19A1 protein)	Labeled Tn in Fig. 3	Labeled Tn in Fig. 3	Expression data shown schematically. Caudal portion of AMD was excluded from arcopallium	Saldanha et al., 2000
Zebra finch	Labeled TnA in Fig. 9d (?)	Labeled TnA in Fig. 9d	Avian Brain Nomenclature Forum recommendation	Reiner et al., 2004
Song sparrow (CYP19A1 mRNA)	Structure labeled Tn in Fig. 2D	Not indicated	Data consistent with zebra finch	Soma et al., 2003
White-throated sparrow (CYP19A1 mRNA)	unpublished	unpublished	Data mostly consistent with zebra finch. Higher aromatase expression in AMD than AMV.	Maney; personal comm.
White-throated sparrow (serotonin transporter protein)	not indicated	TnA in Fig. 4C		Matragrano et al., 2012
House sparrow (CYP19A1 mRNA)	Labeled A in Fig. 3F	labeled TN in Fig 3F		Metzdorf et al., 1999
Canary (CYP19A1 mRNA)	labeled A in Fig. 3E	labeled TN in Fig 3E		Metzdorf et al., 1999
Starling (Cytoarchitectonics)	Not indicated	Labeled Tn in Fig. 1A		Cheng et al., 1999