

Supporting information

Transcription of highly repetitive tandemly organized DNA in amphibians and birds: a historical overview and modern concepts

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Table S1 List of transcribed tandemly organized highly repetitive DNA sequences of amphibians and birds.

Position on chromosome	Sequence name	Species name	Length, bp	Existence of transcription in LBCs/ somatic tissue	Reference
Amphibian					
Centromeric	TkS1	<i>Triturus karelinii</i>	33	+/- NS	37
		<i>Triturus cristatus</i>	UN		
	X1-741	<i>Xenopus laevis</i>	741	+/+	25, 75, 76
	RrS1	<i>Pelophyla lessonae</i>	250-300	+/- NS	40
		<i>Pelophyla ridibundus</i>	250-300	+/- NS	40

Pericentromeric	Satellite 1	<i>Notophthalmus viridescen</i>	222	+ / NS	36
	pTvmI	<i>Triturus vulgaris meridionalis</i>	310	+ / NS	41
	X-132A	<i>Xenopus laevis</i>	77-79	+ / +	25, 43
Telomeric	TTAGGG	<i>Pelophyla ridibundus</i>		+ / NS	40
Throughout the genome	Satellite 2	<i>Notophthalmus viridescen</i>	330-350	+ / +	38
	X-132C	<i>Xenopus laevis</i>	UN	+ / NS	25
	Satellite 1	<i>Rana catesbeiana</i> <i>Rana pipiens</i>	360	+ / NS	39
Other distribution	Satellite DNA of chromosome I	<i>Triturus cristatus carnifex</i>	330	+ / NS	1, 12
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Birds					
Centromeric	PR1	<i>Columba livia</i>	900	+ / NS	55
		<i>Columba palumbus</i>			
	CNM	<i>Gallus domesticus</i>	41	+ / NS	52, 54
	<i>Bgl</i> II-repeat	<i>Coturnix japonica</i>	41	+ / NS	52

Subtelomeric	PO41	<i>Gallus domesticus</i>	41	+ / +	52, 80, 81
	PO41	<i>Coturnix japonica</i>	41	+ / +	52, 80, 81
	LL2R	<i>Gallus domesticus</i>	446	+ / NS	56
Telomeric	TTAGGG	<i>Gallus domesticus</i>		+ / NS	44, 45
	TTAGGG	<i>Coturnix japonica</i>		+ / NS	45
	TTAGGG	<i>Meleagris gallopavo Columba livia</i>		+ / NS	44
	Z-macrosatellite	<i>Gallus domesticus</i>	24000	+ / NS	21
Z chromosome	MHM	<i>Gallus domesticus</i>	460000	+ / +	51, 79

The table represents list of the amphibians and avian tandem repeats, which were studied in order to evaluate the transcription of their sequences. All tandem repeats sequences were divided into groups according to their location on chromosomes.

LBCs: lampbrush chromosomes; NS: transcription was not studied; UN: unknown data; symbol “+”: the existence of transcription.

Figure S2 Subtelomeric tandem PO41 repeat is transcribed in chicken embryonic tissue.

Fragment of chicken embryo at 11HH stage after the whole mount DNA/RNA in situ hybridization with PO41neg probe (red). PO41 RNAs localize in the cell nuclei. Arrows show transcripts foci, arrowheads show dispersed transcripts. Nuclei were counterstained with DAPI. Scale bar: 5 μ m.