# Supplementary Material to: "Dispersion of transposable elements and multigene families: Microstructural variation in *Characidium* (Characiformes: Crenuchidae) genomes"

**Table S1** - PCR reaction mixture for the synthesis of probes used in this work.

| Probe/ Reaction Mix | Primer Forward/Reverse | Vol (µl) | DNA (ng) | $MgCl_2$ (mM) | Primer (µM) | dNTP (mM) | *Taq* pol* (U/µl) |
|---|---|---|---|---|---|---|---|
| *Rex1* | 5'- TTCTCCAGTGCCTTCAACACC-3' | 25 | 200 | 1,5 | 0,2 | 0,04 | 1 |
| | 5'- TCCCTCAGCAGAAAGAGTCTGCTC-3' | | | | | | |
| | (Volff *et al.*, 2000) | | | | | | |
| *Rex3* | 5'-CGGTGAAAAGGGCAGCCCTG-3' | 25 | 200 | 1,5 | 0,2 | 0,04 | 1 |
| | 5'-TGGCAGACNGGGGTGGTGGT-3' | | | | | | |
| | (Volff *et al.*, 1999) | | | | | | |
| U2 | 5'- ATCGCTTCTCGGCCTTATG -3' | 25 | 100 | 1,5 | 0,04 | 0,8 | 1 |
| snRNA | 3'- TCCCGGCGGTACTGCAATA -5' | | | | | | |
| | (Bueno *et al.*, 2013) | | | | | | |
| H1 | 5'-ATGGCAGAARYCGCMCCAGC-3' | 25 | 100 | 1,5 | 0,2 | 0,16 | 1 |
| | 5'-TACTTCTTCTTGGGSGCTGC-3' | | | | | | |
| | (Hashimoto *et al.*, 2011) | | | | | | |
| H3 | 5'-ATGGCTCGTACCAAGCAGACVGC-3' | 25 | 100 | 1,5 | 0,2 | 0,16 | 1 |
| | 5'-ATATCCTTRGGCATRATRGTGAC-3' | | | | | | |
| | (Colgan *et al.*, 1998) | | | | | | |
| H4 | 5'-TSCGIGAYAACATYCAGGGIATCAC-3' | 25 | 100 | 1,5 | 0,2 | 0,16 | 1 |
| | 5'-CKYTTIAGIGCRTAIACCACRTCCAT-3' | | | | | | |
| | (Pineau *et al.*, 2005) | | | | | | |

**Taq* polymerase

**References**

Bueno D, Palacios-Gimenez OM and Cabral-de-Mello DC (2013) Chromosomal mapping of repetitive DNAs in the grasshopper *Abracris flavolineata* reveal possible ancestry of the B chromosome and H3 histone spreading. PLoS One 8:e66532.

Colgan D, McLauchlan A, Wilson G and Livingston S (1998) Histone H3 and U2 snRNA DNA sequences and arthropod molecular evolution. Aust J Zool 46:419-437.

Hashimoto DT, Ferguson-Smith MA, Rens W, Foresti F and Porto- Foresti F (2011) Chromosome mapping of H1 histone and 5S rRNA gene clusters in three species of *Astyanax* (Teleostei, Characidae). Cytogenet Genome Res 134:64-71.

Pineau P, Henry M, Suspène R, Marchio A, Dettai A, Debruyne R, Petit T, Lécu A, Moisson P, Dejean A *et al.* (2005) A universal primer set for PCR amplification of nuclear histone H4 genes from all animal species. Mol Biol Evol 22:582-588.

Volf JN, Körting C, Sweeney K and Schart M (1999) The Non-LTR retrotransposon Rex3 from the fish *Xiphophorus* is widespread among teleosts. Mol Biol Evol 16:1427-1438.

Volff JN, Korting K and Schartl M (2000) Multiple lineages of the non-LTR retrotransposon *Rex1* with varying success in invading fish genomes. Mol Biol Evol 17:1673-1684.