Putative L-Triiodothyronine Receptors in the Liver Nuclei of Mature Tropical Toad, *Bufo melanostictus*

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Thyroid hormones exert a major role in growth and differentiation of almost all types of tissues in animals, particularly in amphibian metamorphosis, through its specific nuclear receptor activation followed by gene expression. However, its function in mature tropical amphibians is less studied. The present study revealed the existence of a single class of specific nuclear receptor(s) in the liver nuclei of mature tropical toad, *Bufo melanostictus*, with a dissociation constant of $(3.7 \pm 0.9) \times 10^{-10}$ molar and maximum binding capacity of 0.074 ± 0.013 pmol/mg DNA. The percentage of relative binding affinities for the specific nuclear L-T3 binding site in the liver nuclei of toad were L-triiodothyronine (L-T3) > triiodothyroacetic acid (TRIAC) > L-thyroxine (L-T4) = tetraiodothyroacetic acid (TETRAC) > 3,3′,5′-triiodothyronine (r-T3) > Diiodothyrtonine (L-T2) (100 > 75 > 19.4 = 19.4 > 3.7 > 0.39) and the relative ED_{50} values (in nanomolar) were $0.33 < 0.44 < 1.7 = 1.7 < 9 < 83$.

Key words: Liver Nuclei, L-Triiodothyronine Receptor, Thyroid Hormone Analogs