Superovulation

347 COULD THE DIFFERENTIAL EXPRESSION OF LUTEINIZING HORMONE RECEPTOR ISOFORMS EXPLAIN THE VARIABILITY IN SUPEROVULATORY RESPONSES IN CATTLE?

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Embryo production *in vivo* is highly variable among donors. The Gir breed (*Bos indicus*) is well known to show a low embryo production after superovulation (2.5 to 3.5 viable embryos per flush), and a high variance in superovulatory responses, which makes this breed an interesting model to study this trait. The aim of this study was to evaluate the expression pattern of LHR isoforms in Gir heifers previously characterised as good (10.3 ± 1.2 embryos/flush, $N = 5$) or poor (1.1 ± 0.3 embryos/flush, $N = 5$) responders to superovulation protocols. In both groups, an adapted ultrasound-guided follicular aspiration system (Arashiro *et al.* 2012 Reprod. Fertil. Dev. **24**, 175) was used to collect granulosa cells (GC) from 8-mm follicles growing in either a synchronized but not stimulated follicular wave (FW) or in the fourth day of superovulation (SOV), induced with 200 UI of FSHp (Pluset, Serono). The recovered follicular fluid was centrifuged and the cells were washed with NaCl 0.9% saline and kept in RNA Later (Ambion, Austin, TX, USA). Total RNA extraction was performed using the commercial RNeasy Micro Kit (Qiagen, Valencia, CA, USA). The RNA samples were quantified and reverse transcribed using the commercial Superscript III kit (Invitrogen, Carlsbad, CA, USA). Complementary DNA samples were amplified

Program Book

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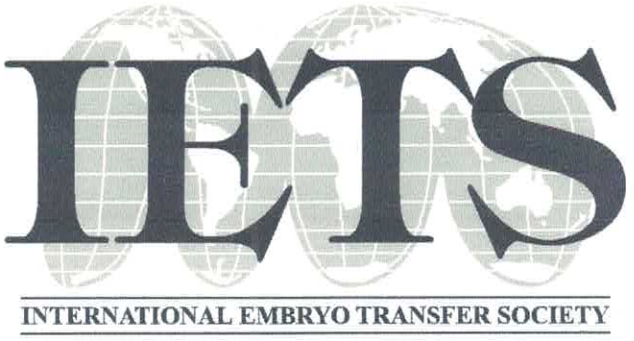

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