Supplemental Data

Prosocial effects of an oxytocin metabolite, but not synthetic oxytocin receptor agonists, in a mouse model of autism

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Supplemental Figure 1. Dose response curves for the fluorescence-based intracellular calcium mobilization assay for TC-OT-39 against hOXTR and the Avp receptor family. Results are reported as normalized % activation, normalized to activity at hOXTR. Each data point is mean \pm SD (n=4).



Supplemental Figure 2. WT CHO cells do not respond to OTXR agonist TC-OT-39. Dose response curves for TC-OT-39 treatment of WT-CHO or hOXTR-expressing CHO cells using a fluorescence-based intracellular calcium mobilization assay.



Supplemental Figure 3. Effects of carbetocin and two oxytocin metabolites on marble burying. Compounds were administered 50 min before the test. BALB/cByJ mice were given one test per week, with order of dose balanced across weeks. Separate sets of mice were used for each compound. Data are means (+SEM) from 4-18 male mice.



Supplemental Figure 4. Lack of carbetocin (20 mg/kg) or OT(5-9) (1.0 mg/kg) effects on sociability in a 3-chamber choice test. The subchronic regimen consisted of 4 treatments with either vehicle or OT(5-9) across an 8-9 day period. Separate sets of mice were used for each compound. Mice were tested 24 hr following the final treatment. Data are means (+SEM) from 12 BALB/cByJ male mice per treatment group. *p<0.05.



Supplemental Figure 5. No significant effects of OT(5-9), 2.0 mg/kg, on sociability in a 3-chamber choice test. The subchronic regimen consisted of 4 treatments with either vehicle or OT(5-9) across an 8-9 day period. A-C) mice were tested for social approach 24 hr following the final treatment. D-F) Mice were tested a second time 12 days following the final treatment. Data are means (+SEM) from 12 BALB/cByJ male mice per treatment group.