

**Supplemental Table 1**

**Expression of mLHR(C22A) in 293T cells results in increased hCG-stimulated cAMP production**

|                           | Basal cAMP<br>(pmol/10 <sup>6</sup> cells) | hCG-stimulated<br>cAMP<br>(pmol/10 <sup>6</sup> cells) | Fold increase in<br>cAMP | <sup>125</sup> I-hCG bound<br>(ng/10 <sup>6</sup> cells) |
|---------------------------|--|--|--------------------------|--|
| <b><i>Expt #1:</i></b>    |  |  |                          |  |
| <b><u>293 cells:</u></b>  |  |  |                          |  |
| EV                        | 3.96 ± 0.02                                | 3.57 ± 0.19  | 0.09                     | 0  |
| mLHR(wt)                  | 8.78 ± 0.15                                | 1169 ± 42.0  | 133                      | 22.0   |
| mLHR(C22A)                | 3.13 ± 0.11                                | 29.3 ± 1.05  | 9.36                     | 0.32   |
| <b><u>293T cells:</u></b> |  |  |                          |  |
| EV                        | 3.46 ± 0.09                                | 3.90 ± 0.13  | 1.13                     | 0  |
| mLHR(wt)                  | 5.68 ± 0.27                                | 2363 ± 44.4  | 416                      | 25.2   |
| mLHR(C22A)                | 4.27 ± 0.04                                | 105 ± 2.10   | 24.5                     | 0.42   |
| <b><i>Expt #2:</i></b>    |  |  |                          |  |
| <b><u>293 cells:</u></b>  |  |  |                          |  |
| EV                        | 3.95 ± 0.01                                | 4.13 ± 0.04  | 1.04                     | 0  |
| mLHR(wt)                  | 9.91 ± 0.12                                | 1573 ± 30.7  | 159                      | 29.3   |
| mLHR(C22A)                | 5.10 ± 0.18                                | 27.7 ± 0.05  | 5.44                     | 0  |
| <b><u>293T cells:</u></b> |  |  |                          |  |
| EV                        | 4.68 ± 0.21                                | 4.97 ± 0.00  | 1.06                     | 0  |
| mLHR(wt)                  | 7.27 ± 0.06                                | 2747 ± 10.9  | 378                      | 40.1   |
| mLHR(C22A)                | 4.71 ± 0.07                                | 113 ± 0.77   | 23.9                     | 0  |
| <b><i>Expt #3:</i></b>    |  |  |                          |  |
| <b><u>293 cells:</u></b>  |  |  |                          |  |
| EV                        | 5.40 ± 0.04                                | 5.32 ± 0.18  | 0.99                     | 0  |
| mLHR(wt)                  | 10.2 ± 0.20                                | 1676 ± 5.77  | 164                      | 26.6   |
| mLHR(C22A)                | 4.64 ± 0.04                                | 47.0 ± 1.05  | 10.1                     | 0  |
| <b><u>293T cells:</u></b> |  |  |                          |  |
| EV                        | 5.13 ± 0.01                                | 4.97 ± 0.21  | 0.97                     | 0  |
| mLHR(wt)                  | 6.33 ± 0.10                                | 2563 ± 122   | 405                      | 30.3   |
| mLHR(C22A)                | 3.69 ± 0.04                                | 83.6 ± 2.10  | 22.7                     | 0  |

HEK293 or HEK293T cells were transiently transfected with empty vector (EV) or with vector encoding the indicated mLHR constructs. Within the same experiment, basal and hCG-stimulated cAMP levels were determined as well as cell surface <sup>125</sup>I-hCG binding. Data shown are from three independent

experiments, which were used for the averaged data shown in Figure \*. The cAMP data are the mean  $\pm$  SEM of triplicate determinations.