

Carboxylesterases are uniquely expressed among tissues and regulated by nuclear hormone receptors in the mouse.

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Drug Metabolism and Disposition

Supplemental Table 1 Quantitative real-time PCR primer sequences for mouse mRNA measurement.

| Gene | Name(s) | Accession Number | Sequence of Primers (5' to 3') | Amplicon position |
|-------------------------------|---|------------------|---|-------------------|
| Carboxylesterase Genes | | | | |
| <i>Ces1a</i> | Carboxylesterase 1A aka <i>EG244595</i> | NM_001013764 | F: CCCTACAGACCTGACAAGCAAAGA R: ATGCTCCACCAGAGAGTAAACCG | 453-532 |
| <i>Ces1c</i> | Carboxylesterase 1C aka <i>Es1, Ces-N</i> | NM_007954 | F: GCACTACGCTGGGTCCAAGAT R: AAAGATGGTCACGGAATCCG | 614-679 |
| <i>Ces1d</i> | Carboxylesterase 1D aka <i>Ces3</i> | NM_053200 | F: ATATGGCTTTCTCTTGCTGCG R: CCCAGGACTTTGCCTTTAACAGT | 104-189 |
| <i>Ces1e</i> | Carboxylesterase 1E aka <i>Es22</i> | NM_133660 | F: GATTGGGGATGTGGTATTTCG R: GGGCTCCGGCATCTCTATGT | 1455-1522 |
| <i>Ces1f</i> | Carboxylesterase 1F aka <i>CesMLI, TGH-2</i> | NM_144930 | F: TTTCAAAGAACAGTAGGCTACCG R: AGAGAGCCCGTCCATCAAAGC | 416-508 |
| <i>Ces1g</i> | Carboxylesterase 1G aka <i>Ces1</i> | NM_021456 | F: CGAGTCAGCAGGAGGTGAAAGT R: TTGAAAATGACACTACTCTGAGCG | 712-810 |
| <i>Ces1h</i> | Carboxylesterase 1H aka <i>AK009689</i> | XM_134476 | F: CTTTGTGAAGAATGCCACCTCG R: TCTGCCCTAACACTGCATCTTG | 225-286 |
| <i>Ces2a</i> | Carboxylesterase 2A aka <i>Ces6</i> | NM_133960 | F: CTCACAGCCGGCCATGT R: AGATTCATTTCTTCGCATCCT | 336-401 |
| <i>Ces2b</i> | Carboxylesterase 2B aka <i>BC015286</i> | NM_198171 | F: TCTGAGATGGTCTCCACTACG R: GCAGGGATCATCTGGACAAGC | 818-954 |
| <i>Ces2c</i> | Carboxylesterase 2C aka <i>Ces2</i> | NM_145603 | F: GCTGAATGCTGGGTTCTTCG R: GCTGCCTTGGATCTGTCCTGT | 92-203 |
| <i>Ces2e</i> | Carboxylesterase 2E aka <i>Ces5</i> | NM_172759 | F: CTTGTCTTTGGCTACCAGTTCG R: TTGCTCCTCTTCCTCAGTGTAAGG | 1448-1507 |
| <i>Ces2f</i> | Carboxylesterase 2F | NM_001079865 | F: TTCAGCGTTCCCATGCTCCT R: CTTGAGTAAACTGGACCTATGCTG | 1306-1367 |
| <i>Ces2g</i> | Carboxylesterase 2G | NM_197999 | F: TCTCTGAGGTGGTTTACCAAACG R: CCTCTCAGACAGCGCACCAG | 870-954 |
| <i>Ces2h</i> | Carboxylesterase 2H | XM_488149 | F: AACTGTCTACGAGGCAAAGCG R: GAGGATGTCTGGGCAGGAAGAT | 865-967 |
| <i>Ces3a</i> | Carboxylesterase 3A aka <i>Es3I</i> | NM_198672 | F: GATGGCCTGTCTGCTCCTGATA R: CAGGAAGACATTTACCATGCG | 73-214 |
| <i>Ces3b</i> | Carboxylesterase 3B aka <i>Es3II</i> | NM_144511 | F: GGATTGTCACGACCATTATGATG R: CAGAGCCACAGGCCACAGAA | 796-879 |
| <i>Ces4a</i> | Carboxylesterase 4A aka <i>Ces8</i> | NM_146213 | F: TCTCAGCAGAGGAGGTGACG R: CACTGGGCTCAGGAACCACAC | 1036-1136 |
| <i>Ces5a</i> | Carboxylesterase 5A aka <i>Ces7</i> | NM_001003951 | F: GTTGTACCATCCAGTACCG R: GTCCCAGAAGGCCCAATTCC | 508-594 |
| Other genes | | | | |
| <i>Cyclo</i> | Cyclophilin, peptidyl-prolyl isomerase B | NM_011149 | F: TGGAGAGCACCAAGACAGACA R: TGCCGGAGTCGACAATGAT | 642-707 |
| <i>Cyp3a11</i> | Cytochrome P450 3a11 | NM_007818 | F: AAAGTGCAGGATGAGATCGATGA R: TCCAGGTATTCCATCTCCATCAC | 1069-1151 |
| <i>Cyp4a14</i> | Cytochrome P450 4a14 | NM_007822 | F: CCCCTCTAGATTTGCACCAGAT R: TCCCAATGCAGTTCCTTGATC | 1315-1397 |
| <i>Cyp7a1</i> | Cytochrome P450 7a1, Cholesterol 7 α -hydroxylase | NM_007824 | F: AGCAACTAAACAACCTGCCAGTA CTA R: GTCCGGATATTCAAGGATGCA | 1073-1154 |
| <i>Il1β</i> | Interleukin 1 β | NM_008361 | F: CAACCAACAAGTGATATTCTCCATG R: GATCCACACTCTCCAGCTGCA | 527-678 |
| <i>Tnf</i> | Tumor necrosis factor | NM_013693 | F: CTGAGGTCAATCTGCCCAAGTAC R: CTTACAGAGCAATGACTCCAAAG | 791-866 |