Supplemental Table 1 List of DHT-regulated genes with known annotations in the initial segment and caput epididymis after regression and their classification based on biological function at: a) 12 h b) 1 day c) 7 days. Genes symbol are shown in bold if they have a similar expression pattern between two groups: orchidectomy versus sham operated and orchidectomy versus orchidectomy plus DHT.

Table 1a)

<table>
<thead>
<tr>
<th>Common gene name</th>
<th>Gene symbol</th>
<th>GenBank accession no.</th>
<th>Fold change (p-value)</th>
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<td>Arg/Abl-interacting protein</td>
<td>Argbp2</td>
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<td>Chimerin (chimaerin) 1</td>
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<td>FGF receptor activating protein 1</td>
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<td>Homer, neuronal immediate early gene 2</td>
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<td>Receptor (calcitonin) activity modifying protein 3</td>
<td>Ramp3</td>
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<td>Tropomyosin 1, alpha</td>
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<td>Bile acid-Coenzyme A: amino acid N-acyltransferase</td>
<td>Baat</td>
<td>NM_017300</td>
<td>2.1 (0.041)</td>
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<td>Cytosolic cysteine dioxygenase 1</td>
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<td>Carboxylesterase 3</td>
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<td>Glutamate decarboxylase 1</td>
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<td>Hydroxysteroid 11-beta dehydrogenase 2</td>
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<td>Aminoadipate aminotransferase</td>
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<td>Pfkfb4</td>
<td>6-phosphofructokinase/fructose-2,6-bisphosphatase 4</td>
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### Table 1b)

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<th>Common gene name</th>
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<td><strong>Signaling transduction/GTPase</strong></td>
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<tr>
<td>Arg/Abl-interacting protein</td>
<td>Argbp2</td>
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<td>2.03 (0.0002) 2.3 (0.0021)</td>
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<td>FGF receptor activating protein 1</td>
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<td>NM_053895</td>
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<td>Homer, neuronal immediate early gene 3</td>
<td>Homer2</td>
<td>NM_053309</td>
<td>0.26 (0.0005) 0.2 (0.038)</td>
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<tr>
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<td>Ramp3</td>
<td>NM_020100</td>
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<td>Bile acid-Coenzyme A: amino acid N-acyltransferase</td>
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<td>NM_017300</td>
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<td>Cytosolic cysteine dioxygenase 1</td>
<td>Cdo1</td>
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<td>0.48 (0.0001) 0.37 (1.2E-05)</td>
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<td>Carboxylesterase 3</td>
<td>Ces3</td>
<td>NM_133295</td>
<td>0.32 (0.0058)</td>
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<td>Glutamate decarboxylase 1</td>
<td>Gad1</td>
<td>NM_017007</td>
<td>3.42 (0.0229)</td>
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<td>Hydroxysteroid 11-beta dehydrogenase 2</td>
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<td>Aminoadipate aminotransferase</td>
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<td>6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 4</td>
<td>Pfkb4</td>
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<td><strong>Transport</strong></td>
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<td>Blocked early in transport 1 homolog (S.cerevisiae)</td>
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<td>Cytochrome P450, subfamily 2E, polypeptide 1</td>
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<td>Synaptic vesicle glycoprotein 2 b</td>
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<td>Synaptotagmin XII</td>
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**Regulation of cell proliferation/growth**

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<td>Edn1</td>
<td>NM_012548</td>
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<td>Epidermal growth factor</td>
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<td>C-fos induced growth factor</td>
<td>Figf</td>
<td>NM_031761</td>
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<td>Insulin-like growth factor binding protein 1</td>
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<tr>
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**Cell-cell signaling**

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<td>Ephrin B1</td>
<td>Efnb1</td>
<td>NM_017089</td>
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<td>Occludin</td>
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**Regulation of transcription**

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<td>Androgen receptor</td>
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<td>B-cell translocation gene 2, anti-proliferative</td>
<td>Btg2</td>
<td>NM_017259</td>
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<td>Cbp/p300-interacting transactivator, with</td>
<td>Cited4</td>
<td>NM_053699</td>
<td>0.39 (6E-05)</td>
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<tr>
<td>Hairy/Asp-rich carboxy-terminal domain, 4</td>
<td>Hey1</td>
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<td>Inhibitor of DNA binding 3, dominant negative helix-loop-helix protein</td>
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<tr>
<td>Placentae and embryos oncofetal gene</td>
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<td>WNK lysine deficient protein kinase 4</td>
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**Cell adhesion**

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<th>SE Value</th>
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<td>Similar to M-cadherin (LOC361432), mRNA</td>
<td>Cdhl5</td>
<td>NM_207613</td>
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<tr>
<td>Carbohydrate sulfotransferase 10</td>
<td>Chst10</td>
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<td>0.36 (0.0078)</td>
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<td>Integrin alpha 1</td>
<td>Itga1</td>
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<tr>
<td>Spondin 2, extracellular matrix protein</td>
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<td>NM_138533</td>
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<td>Neural cell adhesion molecule 1</td>
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<td>NM_031521</td>
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<td>Trophoblast glycoprotein</td>
<td>Tpbg</td>
<td>NM_031807</td>
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</table>

**Immune response**

| Interleukin 13 receptor, alpha 2 | Il13ra2 | NM_133538 | 0.19 (0.0003) | 0.11 (0.0263) |
| Interleukin 1 receptor-like 1    | Il1rl1  | NM_013037 | 0.3 (0.0317) | 0.26 (0.0174) |

**Protein modification**

| Kua homolog                      | Kua     | XM_342588 | 0.45 (3.1E-05) | 0.33 (0.0028) |
| Lysyl oxidase                    | Lox     | NM_017061 | 2.46 (0.0049) |               |

**Protein folding**

| Cyclophilin B                    | Ppib    | NM_022536 | 0.2 (0.0284) |               |

**Response to stress**

| Crystallin, alpha B              | Cryab   | NM_012935 | 2.16 (0.0031) |               |
| Galanin                          | Gal     | NM_033237 | 0.38 (0.0105) | 0.23 (0.0018) |
| Hypoxia up-regulated 1           | Hyou1   | NM_001034 | 0.37 (0.04)  | 0.43 (0.04)  |
| Peroxiredoxin 6                  | Prdx6   | NM_053576 | 0.42 (0.0006) | 0.32 (0.005)  |

**Apoptosis**

| Nerve growth factor receptor (TNFR superfamily, member 16) | Ngfr | NM_012610 | 0.25 (0.0019) | 0.33 (0.0304) |
| Programmed cell death 8 (apoptosis-inducing factor) | Pdcd8 | NM_031356 | 0.46 (0.0006) | 0.45 (0.0114) |

**Proteolysis**

<p>| Calpain 10                       | Capn10  | NM_031673 | 0.45 (0.0018) | 0.35 (0.0099) |
| Cathepsin C                      | Ctsc    | NM_017097 | 2.38 (0.0148) | 4.65 (0.0025) |
| Aminopeptidase A                 | Enpep   | NM_022251 | 2.02 (0.023)  | 2.01 (0.0241) |
| Epoxide hydrolase 1              | Ephx1   | NM_012844 | 0.46 (0.0004) | 0.41 (0.0003) |
| Matrix metalloproteinase 11      | Mmp11   | NM_012980 | 2.01 (0.0249) | 3.11 (0.0177) |
| Nerve growth factor, gamma       | Ngfg    | NM_031523 | 2.11 (0.0002) | 2.42 (0.0012) |
| Transmembrane protein 27         | Tmem27  | NM_020976 | 3.48 (0.04)  |               |
| Proprotein convertase subtilisin/kexin type3 | Pcsk3  | NM_019331 | 0.31 (0.0001) | 0.23 (0.0097) |
| Plasminogen activator, urokinase | Plau    | NM_013085 | 2.17 (0.0384) | 3.28 (0.027)  |
| Sperm associated antigen 5       | Spag5   | NM_001044 | 0.37 (0.0381) |               |</p>
<table>
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<th>Signaling transduction/GTPase</th>
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<td>Spermatogenesis</td>
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<td>Rab38</td>
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<td>Rgn</td>
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<td>Membrane associated guanylate kinase, WW and PDZ domain containing 3</td>
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<td>Glucokinase</td>
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<td>Enzymatic glycosylation-regulating gene</td>
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<td>Acetoacetyl-CoA synthetase</td>
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<td>Lipoprotein lipase</td>
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**Transport**

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**Regulation of cell proliferation/growth**

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**Immune response**
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Supplemental Table 2 List of E2-regulated genes with known annotations in the initial segment and caput epididymis after regression and their classification based on biological function at: 12 h, 1 day, and 7 days.

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