**S5 Table. List of all annotated differentially transcribed genes (*p*<0.05) in *Daphnia magna* measured by RNA-sequencing following 21-d individual exposure to 2 mg/L of BTR, 5MeBTR and 5ClBTR.** Transcription values are expressed as log2 (fold change). Gene over-transcribed are coloured in red and genes under-transcribed in green. N.S.: Non-Significant differential transcription.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Transcript ID** | **Predicted function** |  |  | **Log2 FC ([BZT] vs [Control])** |
| **BTR** | **5MeBTR** | **5ClBTR** |
| **Molting** |  |  |  |  |
| TR2454|c0\_g1\_i4 | Chitin deacetylase 3 precursor | -2,462 | NS | NS |
| TR12386|c1\_g2\_i1 | Cuticular protein | -2,264 | NS | NS |
| TR17193|c0\_g1\_i1 | Cuticular protein analogous to peritrophins 1-G | -2,265 | NS | NS |
| TR18327|c0\_g1\_i1 | Cuticlin-1 | -2,007 |  |  |
| TR3539|c0\_g1\_i2 | Cuticular protein analogous to peritrophins 1-D | 2,415 |  |  |
| TR18059|c0\_g1\_i1 | Sulfotransferase sult | 2,548 | NS | NS |
| TR14873|c0\_g1\_i1 | Sulfotransferase family cytosolic 1B member | 2,408 | NS | NS |
| TR5495|c0\_g1\_i4 | Cuticular protein 72Eb | 3,589 | NS | NS |
| TR5495|c0\_g2\_i1 | Cuticular protein 72Eb | 5,054 | NS | NS |
| TR16595|c1\_g1\_i1 | Cuticular protein | 3,443 | NS | NS |
| TR7965|c0\_g2\_i1 | Cuticle protein 16.5, isoform B-like  | 3,358 | NS | NS |
| TR18670|c0\_g1\_i2 | Cuticle protein 7 | 3,898 | NS | NS |
| TR21222|c0\_g1\_i1 | Cuticular protein | 3,948 | NS | NS |
| TR5360|c0\_g1\_i1 | Cuticle protein  | 7,907 | -2,53 | NS |
| TR315|c0\_g1\_i2 | Endochitinase-like  | 5,244 | -2,625 | NS |
| TR10295|c0\_g1\_i1 | Cuticular protein 27 | 5,649 | NS | NS |
| TR1915|c0\_g1\_i1 | Cuticle protein | 7,044 | NS | NS |
| TR21858|c0\_g1\_i6 | Chitinase 3  | 7,078 | -3,326 | NS |
| TR26908|c0\_g1\_i2 | Cuticular protein RR-2 motif 132  | 10,495 | -2,25 | NS |
| TR27488|c0\_g1\_i1 | Cuticle protein | NS | -2,339 | NS |
| TR10948|c0\_g1\_i1 | Cuticle protein | NS | -2,293 | NS |
| TR5693|c0\_g1\_i1 | cuticular protein |  | -2,004 |  |
| TR15668|c0\_g2\_i1 | Brain chitinase and chia | NS |  NS | 10,468 |
| **Glycan biosynthesis and metabolism** |  |  |  |
| TR17500|c0\_g1\_i1 | Alpha-(1,3)-fucosyltransferase | 5,199 | NS | NS |
| TR9540|c0\_g1\_i1 | Alpha-(1,3)-fucosyltransferase 11 | -2,966 | NS | NS |
| TR4804|c0\_g1\_i1 | Beta-galactoside alpha-2,6-sialyltransferase | -2,27 | NS | NS |
| TR21409|c0\_g1\_i1 | Beta-1,4-galactosyltransferase | NS | -3,493 | NS |
| TR27685|c1\_g2\_i1 | Lactosylceramide 4-alpha-galactosyltransferase | NS | -2,828 | NS |
| TR2230|c0\_g1\_i2 | Lactosylceramide | NS | -2,431 | NS |
| TR5282|c0\_g1\_i1 | Beta-1,3-galactosyltransferase 1  | NS |  NS | -5,958 |
| **20E-related mechanisms** |  |  |  |
| TR7253|c0\_g1\_i1 | Hydroxysteroid dehydrogenase | 2,3 | NS | NS |
| TR24696|c0\_g1\_i1 | Vitellogenin- fused with superoxide dismutase | 3,534 | NS | NS |
| TR25602|c0\_g2\_i2 | Vitellogenin-1 precursor | 2,791 | NS | NS |
| TR18077|c1\_g1\_i1 | Vitellogenin-1 like |  |  | -10,325 |
| TR25192|c1\_g2\_i1 | ATP-dependent RNA helicase DDX4 | 4,787 | NS | NS |
| TR870|c0\_g1\_i1 | Histone-lysine N-methyltransferase SETD2 | 3,28 | NS | NS |
| TR28161|c1\_g1\_i1 | Histone-lysine N-methyltransferase SETD2 | 4,691 | NS | NS |
| TR2078|c1\_g2\_i1 | Histone-lysine N-methyltransferase MLL3  | NS | 3,413 | NS |
| TR18241|c0\_g1\_i1 | Histone-lysine N-methyltransferase NSD2-like protein |  | -4,041 |  |
| TR21048|c0\_g2\_i1 | Receptor-type tyrosine-protein phosphatase alpha precursor | NS | -5,714 | NS |
| TR25581|c0\_g1\_i1 | ecdysteroid-regulated 16 kDa protein (NPC2) |  |  | -10,865 |
| TR1754|c0\_g1\_i1 | Kr-h2 (Krueppel homolog) |  NS |  NS | -7,356 |
| **Structural proteins** |  |  |  |
| TR9222|c0\_g1\_i2 | Collagen alpha-1(IV) chain | -2,68 | NS | NS |
| TR7499|c1\_g1\_i1 | Contactin associated protein 1  | -2,356 | NS | NS |
| TR7499|c2\_g3\_i2 | Contactin associated protein 1  | -3,641 | NS | NS |
| TR18327|c0\_g1\_i1 | Cuticlin-1 | -2,007 | NS | NS |
| TR18739|c0\_g1\_i1 | Collagen alpha-1(XXIII) chain |  NS | -2,841 | NS |
| **Development / cell morphogenesis** |
| TR9106|c2\_g2\_i1 | Homeobox protein cut | -2,134 | NS | NS |
| TR6299|c0\_g1\_i1 | Membrane glycoprotein lig-1 | -2,133 | NS | NS |
| TR12987|c0\_g2\_i1 | Twisted gastrulation protein-A | -5,945 | NS | NS |
| TR15724|c0\_g1\_i1 | Germinal histone H4 protein | 2,91 | NS | NS |
| TR5622|c2\_g3\_i1 | Homeotic HOX3 protein  | 3,284 | -5,344 | NS |
| TR5710|c2\_g1\_i1 | Nuclear distribution protein nudE 1-B | 4,692 | NS | NS |
| TR3040|c0\_g1\_i1 | Secreted frizzled-related protein | 4,782 | NS | NS |
| TR6370|c0\_g1\_i1 | Nose resistant to fluoxetine protein | 4,981 | -2,582 | NS |
| TR25522|c0\_g1\_i1 | Innexin | NS | -4,666 | NS |
| TR27724|c1\_g2\_i1 | Homeobox even-skipped protein | NS | -3,756 | NS |
| TR16518|c0\_g1\_i1 | Homeobox protein Hox-A7 | NS | -3,487 | NS |
| TR7976|c0\_g1\_i1 | T-box transcription factor TBX2 | NS | -2,815 | NS |
| TR5312|c0\_g1\_i1 | Homeobox protein goosecoid | NS | -2,528 | NS |
| TR15398|c1\_g1\_i2 | Homeobox protein orthopedia B | NS | -2,415 | NS |
| TR20697|c3\_g2\_i1 | H3 histone | NS | -2,375 | NS |
| TR1015|c1\_g1\_i1 | Homeobox protein Hox-C4 | NS | -2,198 | NS |
| TR18336|c3\_g1\_i2 | Histone h2a | NS | -2,198 | NS |
| TR14619|c0\_g1\_i1 | Bone morphogenetic protein | NS | -2,091 | NS |
| TR12052|c0\_g2\_i1 | Uncharacterized protein | NS | 4,93 | NS |
| TR21224|c0\_g2\_i1 | DNA topoisomerase I | NS | 8,471 | NS |
| TR27896|c1\_g1\_i1 | Heat shock 70 kDa protein cognate 4  | NS |  NS | -10,06 |
| **Lipid metabolism** |  |  |  |  |
| TR21790|c0\_g1\_i1 | Apolipoprotein D | -8,436 | NS | NS |
| TR11768|c0\_g1\_i1 | Apolipoprotein D | -4,744 | NS | NS |
| TR1240|c0\_g1\_i1 | Apolipoprotein D | -3,203 | NS | NS |
| TR9148|c1\_g1\_i1 | Apolipoprotein D | -2,951 | NS | NS |
| TR28166|c3\_g2\_i1 | Lipase 3 | -4,44 | NS | NS |
| TR28166|c1\_g1\_i1 | Lipase 3 | -2,207 | NS | NS |
| TR14846|c4\_g1\_i1 | SEC14-like protein  | -2,699 | NS | NS |
| TR27517|c4\_g1\_i1 | 4-coumarate--CoA ligase | 5,015 | NS | NS |
| TR13860|c0\_g1\_i1 | Secretory phospholipase a2 | 6,068 | -2,473 | NS |
| TR6240|c0\_g1\_i2 | Lipase | NS | -2,097 | NS |
| TR7303|c0\_g1\_i1 | Pancreatic triacylglycerol lipase | NS | 4,972 | NS |
| TR27416|c0\_g2\_i1 | Phospholipase A-2-activating protein | NS | NS | -4,685 |
| TR6718|c0\_g1\_i2 | C1q-like adipose specific protein-like protein | NS | NS | -2,266 |
| TR28100|c0\_g1\_i1 | Elongation of very long chain fatty acids protein  |  NS |  NS | 5,282 |
| **Protein metabolism** |
| TR27710|c0\_g1\_i1 | Zinc carboxypeptidase | -4,838 | NS | NS |
| TR9749|c0\_g1\_i1 | ATP-dependent zinc metalloprotease | -4,585 | NS | NS |
| TR13671|c0\_g1\_i1 | E3 ubiquitin-protein ligase rififylin  | -3,432 | NS | NS |
| TR8030|c0\_g1\_i1 | Serine protease inhibitor | -2,185 | NS | NS |
| TR5959|c1\_g1\_i6 | Serine threonine-protein kinase | 2,061 | NS | NS |
| TR5959|c3\_g3\_i2 | Serine threonine-protein kinase | 2,476 | NS | NS |
| TR20749|c0\_g1\_i2 | Serine threonine-protein kinase | 2,504 | NS | NS |
| TR5959|c3\_g2\_i1 | Serine threonine-protein kinase | 2,632 | NS | NS |
| TR19361|c0\_g1\_i1 | Clip-domain serine protease | 2,721 | NS | NS |
| TR21324|c0\_g1\_i1 | Proline dehydrogenase 1, mitochondrial | 4,681 | NS | NS |
| TR20230|c1\_g2\_i1 | Ubiquitin modifier-activating enzyme | 5,363 | NS | NS |
| TR11178|c0\_g1\_i1 | Ubiquitin protein 7 | 5,613 | NS | NS |
| TR11056|c0\_g2\_i1 | 26S proteasome non-ATPase regulatory subunit 8 | NS | -5,18 | NS |
| TR18909|c0\_g1\_i1 | Serine/threonine-protein kinase | NS | -4,83 | NS |
| TR9794|c0\_g1\_i1 | Tryptophan 5-hydroxylase | NS | -2,928 | NS |
| TR1803|c2\_g8\_i15 | Ubiquitin-conjugating enzyme E2 | NS | -2,418 | NS |
| TR14948|c1\_g2\_i1 | Ubiquitin conjugating enzyme 7 | NS | 5,105 | NS |
| TR19738|c0\_g3\_i2 | Cathepsin L | NS | NS | -4,074 |
| TR3525|c0\_g2\_i1 | Trypsin 1-like | NS | NS | -2,039 |
| **Energy metabolism** |
| TR4219|c0\_g1\_i1 | Solute carrier family 2, facilitated glucose | -4,522 | NS | NS |
| TR12179|c1\_g2\_i1 | Glucose dehydrogenase [FAD, quinone]  | -3,189 | NS | NS |
| TR23459|c0\_g1\_i1 | Neutral alpha-glucosidase C | 7,516 | NS | NS |
| TR24447|c0\_g1\_i1 | Fructose-bisphosphate aldolase isoform X2  |   | NS | -9,802 |
| **RNA processing and metabolism** |
| TR14005|c0\_g1\_i1 | Tudor and KH domain-containing protein | -2,117 | NS | NS |
| TR18205|c0\_g2\_i1 | RNA pseudouridylate synthase | 5,484 | NS | NS |
| TR5591|c0\_g1\_i1 | THO complex subunit | 11,924 | NS | NS |
| TR18209|c0\_g2\_i1 | RNase\_HI\_RT\_Ty3, Ty3/Gypsy family of RNase HI in long-term repeat | 2,547 |  |  |
| **Transcription / Translation** |
| TR23915|c0\_g1\_i1 | Translation initiation factor IF-2 | -4,925 | NS | NS |
| TR10999|c0\_g1\_i1 | 28S ribosomal protein S30, mitochondrial | -2,083 | NS | NS |
| TR19840|c0\_g1\_i1 | Spz1  | -2,571 | NS | NS |
| TR23039|c4\_g1\_i1 | Transcription factor Sox-14 | -2,268 | NS | NS |
| TR25096|c0\_g2\_i1 | Transcription factor atf1  | 6,482 | -2,233 | NS |
| TR9119|c0\_g1\_i1 | Basic-leucine zipper transcription regulator giant  | 7,765 | -3,715 | NS |
| TR11306|c0\_g1\_i1 | Zinc finger transcription factor | NS | -3,183 | NS |
| TR23018|c1\_g1\_i1 | Huckebein | NS | -3,137 | NS |
| TR8012|c0\_g2\_i1 | Reverse transcriptase | NS | 5,998 | NS |
| TR10734|c0\_g2\_i1 | Eukaryotic translation initiation factor 3 subunit C  | NS | NS | -5,953 |
| TR23377|c0\_g2\_i1 | tRNA pseudouridine synthase 1 | NS | NS | -2,111 |
| **Cytoskeleton** |
| TR9879|c1\_g1\_i1 | Myosin-2 heavy chain | 2,161 | NS | NS |
| TR12861|c0\_g1\_i1 | Actin-related protein | 6,444 | NS | NS |
| TR6948|c0\_g2\_i1 | T-complex protein 1 subunit delta | NS | -9,555 | NS |
| TR7628|c0\_g2\_i1 | T-complex protein 1 subunit beta | NS | -7,188 | NS |
| TR9360|c0\_g1\_i1 | Unconventional myosin-X | NS | -2,867 | NS |
| **Oxidative stress** |
| TR9613|c0\_g1\_i1 | Peroxidase chorion | -2,454 | NS | NS |
| TR23555|c0\_g1\_i1 | Guanine deaminase  | 4,498 | NS | NS |
| TR26585|c0\_g1\_i1 | Peroxidase precursor | 6,454 | NS | NS |
| TR28979|c0\_g1\_i1 | Hexaprenyldihydroxybenzoate methyltransferase |  NS | NS | 3,784 |
| **Ion transport, homeostasis** |
| TR15362|c0\_g1\_i1 | GTP-binding protein CG1354 | 2,446 | NS | NS |
| TR4611|c0\_g1\_i21 | Solute carrier family 13 member | 2,652 | NS | NS |
| TR131|c0\_g1\_i5 | Glutamate receptor, ionotropic kainate 2 | 2,727 | NS | NS |
| TR21608|c0\_g1\_i1 | Zinc/iron regulated transporter-related protein | 2,75 | NS | NS |
| TR17516|c0\_g2\_i2 | Voltage-dependent T-type calcium channel subunit alpha-1G | 3,679 | NS | NS |
| TR23527|c0\_g2\_i1 | V-type proton ATPase subunit C 1-A | 6,226 | 2,285 | NS |
| TR25665|c1\_g4\_i1 | Cation-transporting atpase | NS | 6,083 | NS |
| TR1472|c1\_g1\_i2 | Na(+)/Pi cotransporter | NS | -6,73 | NS |
| **Membrane trafficking** |
| TR7572|c0\_g1\_i1 | Myotubularin-related protein | NS | -7,115 | NS |
| TR13755|c0\_g2\_i1 | Trafficking protein particle complex subunit 6B | NS |  NS | -2,186 |
| **Response to drug** |
| TR25447|c4\_g1\_i1 | ATP-binding cassette sub-family A | NS | -3,308 | NS |
| TR16607|c0\_g1\_i1 | Glucosyl/glucuronosyl transferases | NS | -2,834 | NS |
| **Retinol metabolism** |
| TR4143|c0\_g1\_i1 | Retinol dehydrogenase  | NS | -2,439 |  NS |
| **Immune response** |
| TR25023|c0\_g2\_i1 | Complement C1q tumor necrosis factor-related protein 3 NS | -2,997 |  NS |
| TR20856|c0\_g1\_i1 | C-type lectin ctl - mannose binding | NS | 2,116 |  NS |
| **Other functions** |
| TR24174|c0\_g1\_i1 | Tetraspanin-11 | -2,985 | NS | NS |
| TR15017|c0\_g2\_i1 | LisH domain-containing protein FOPNL | -4,836 | NS | NS |
| TR14809|c0\_g1\_i3 | Heme-binding protein 2  | -2,238 | NS | NS |
| TR13056|c1\_g1\_i2 | Zinc finger CCCH domain-containing protein 4-like | -2,263 | NS | NS |
| TR11453|c0\_g1\_i1 | DmX protein 2  | -5,847 | NS | NS |
| TR16609|c0\_g3\_i1 | Dexamethasone-induced Ras-related | -2,366 | NS | NS |
| TR17987|c0\_g2\_i1 | Methyltransferase-like protein 13  | 2,371 | NS | NS |
| TR14563|c0\_g1\_i3 | Carbonic anhydrase | 2,424 | NS | NS |
| TR14862|c0\_g1\_i1 | SecG, Translocase, SecG subunit | 2,514 | NS | NS |
| TR19222|c0\_g2\_i2 | Denn domain-containing protein | 2,773 | NS | NS |
| TR26247|c0\_g1\_i1 | Reverse transcriptase from retrotransposon | 3,642 | NS | NS |
| TR7838|c0\_g1\_i2 | Lethal2essential for life protein | 4,034 | NS | NS |
| TR3086|c1\_g2\_i1 | DENN domain-containing protein 5B-like  | 4,607 | NS | NS |
| TR14174|c0\_g2\_i1 | Nuclear pore complex protein Nup93 | 6,584 | NS | NS |
| TR19541|c0\_g1\_i1 | Prolactin regulatory element-binding protein | 7,215 | NS | NS |
| TR9874|c0\_g1\_i1 | Gmp synthase | 2,181 | NS | NS |
| TR11132|c0\_g1\_i1 | Dickkopf-related protein | 7,826 | NS | NS |
| TR2305|c0\_g6\_i1 | WD repeat-containing protein | NS | -6,592 | NS |
| TR17210|c0\_g2\_i1 | N-acetyltransferase | NS | -6,077 | NS |
| TR5724|c0\_g3\_i1 | Integrase | NS | -5,005 | NS |
| TR2642|c0\_g2\_i1 | Aldehyde oxidase | NS | -4,949 | NS |
| TR18585|c0\_g2\_i1 | Cytochrome b5  | NS | -4,745 | NS |
| TR16837|c0\_g2\_i1 | 5'-nucleotidase domain-containing protein | NS | -3,02 | NS |
| TR7886|c0\_g2\_i1 | CLK4-associating serine/arginine | NS | -2,104 | NS |
| TR21447|c0\_g1\_i1 | ZZ-type zinc finger-containing protein | NS | -3,787 | NS |
| TR14726|c0\_g1\_i1 | TBC1 domain family member | NS | -2,759 | NS |
| TR28130|c1\_g1\_i1 | Dystrophin | NS | 2,072 | NS |
| TR22904|c0\_g2\_i1 | Transposase | NS | 2,673 | NS |
| TR13893|c0\_g1\_i1 | Mismatch repair endonuclease PMS2 | NS | 5,077 | NS |
| TR21015|c0\_g2\_i1 | Class a rhodopsin g-protein coupled receptor gprnna7 | NS |  5,11 | NS |