

Supplementary Table 1. Sequences producing significant alignments.

| Description  | Max score | Total score | Query cover | E value | Ident | Accession                     |
|--|-----------|-------------|-------------|---------|-------|-------------------------------|
| <a href="#">3-beta-hydroxysteroiddehydrogenase [Digitalis lanata]</a>                        | 524       | 524         | 99%         | 0.0     | 100%  | <a href="#">CAC93667.1</a>    |
| <a href="#">3-beta hydroxysteroid dehydrogenase [Digitalis thapsi]</a>                       | 520       | 520         | 99%         | 0.0     | 99%   | <a href="#">AAV68715.1</a>    |
| <a href="#">3-beta hydroxysteroid dehydrogenase [Digitalis parviflora]</a>                   | 516       | 516         | 99%         | 0.0     | 98%   | <a href="#">AAV68713.1</a>    |
| <a href="#">3-beta-hydroxysteroid dehydrogenase [Digitalis ferruginea]</a>                   | 515       | 515         | 99%         | 0.0     | 97%   | <a href="#">AIY27794.1</a>    |
| <a href="#">3-beta hydroxysteroid dehydrogenase [Digitalis grandiflora]</a>                  | 508       | 508         | 99%         | 0.0     | 97%   | <a href="#">AAV68712.1</a>    |
| <a href="#">3-beta hydroxysteroid dehydrogenase [Digitalis ferruginea]</a>                   | 502       | 502         | 99%         | 1e-179  | 96%   | <a href="#">AAV68714.1</a>    |
| <a href="#">3-beta-hydroxysteroid dehydrogenase [Digitalis purpurea subsp. heywoodii]</a>    | 496       | 496         | 99%         | 5e-177  | 95%   | <a href="#">AAW31719.1</a>    |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Erythranthe guttata]</a> | 392       | 392         | 98%         | 4e-136  | 74%   | <a href="#">XP_01283467.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b [Theobroma cacao]</a>          | 371       | 371         | 98%         | 1e-127  | 70%   | <a href="#">XP_01797570.1</a> |
| <a href="#">short-chain dehydrogenase reductase 3b-like [Herrania umbratica]</a>             | 371       | 371         | 98%         | 2e-127  | 70%   | <a href="#">XP_02128083.4</a> |
| <a href="#">short-chain dehydrogenase reductase 3b [Jatropha curcas]</a>                     | 368       | 368         | 99%         | 2e-126  | 69%   | <a href="#">XP_01208380.7</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Gossypium arboreum]</a>  | 368       | 368         | 98%         | 2e-126  | 69%   | <a href="#">XP_01762951.4</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Gossypium hirsutum]</a>  | 366       | 366         | 98%         | 2e-125  | 69%   | <a href="#">XP_01670889.8</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Gossypium raimondii]</a> | 365       | 365         | 98%         | 2e-125  | 68%   | <a href="#">XP_01249028.1</a> |
| <a href="#">NAD(P)-binding Rossmann-fold superfamily protein [Theobroma cacao]</a>           | 365       | 365         | 97%         | 4e-125  | 70%   | <a href="#">EOX95389.1</a>    |
| <a href="#">unnamed protein product [Coffea canephora]</a>                                   | 365       | 365         | 98%         | 6e-125  | 70%   | <a href="#">CDP19818.1</a>    |
| <a href="#">short-chain dehydrogenase reductase 3b [Prunus persica]</a>                      | 363       | 363         | 98%         | 2e-124  | 70%   | <a href="#">XP_02041598.2</a> |

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| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Gossypium raimondii]</a>              | 362       | 362         | 98%         | 6e-124  | 69%   | <a href="#">XP_012480004.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Gossypium hirsutum]</a>               | 362       | 362         | 98%         | 9e-124  | 69%   | <a href="#">XP_016743747.1</a> |
| <a href="#">short-chain dehydrogenase reductase 3b-like [Hevea brasiliensis]</a>                          | 361       | 361         | 98%         | 1e-123  | 68%   | <a href="#">XP_021664446.1</a> |
| <a href="#">short-chain dehydrogenase reductase 3b-like [Dorcoceras hygrometricum]</a>                    | 360       | 360         | 95%         | 3e-123  | 70%   | <a href="#">KZV57595.1</a>     |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Gossypium arboreum]</a>               | 360       | 360         | 98%         | 5e-123  | 69%   | <a href="#">XP_017605179.1</a> |
| <a href="#">hypothetical protein B456_007G119800 [Gossypium raimondii]</a>                                | 360       | 360         | 97%         | 1e-122  | 68%   | <a href="#">KJB41674.1</a>     |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Daucus carota subsp. sativus]</a>     | 358       | 358         | 96%         | 2e-122  | 67%   | <a href="#">XP_017220735.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Populus euphratica]</a>               | 358       | 358         | 98%         | 2e-122  | 67%   | <a href="#">XP_011040603.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Juglans regia]</a>                    | 358       | 358         | 99%         | 2e-122  | 67%   | <a href="#">XP_018852939.1</a> |
| <a href="#">hypothetical protein SOVF_059940 [Spinacia oleracea]</a>                                      | 358       | 358         | 98%         | 3e-122  | 68%   | <a href="#">KNA19597.1</a>     |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Vitis vinifera]</a>                   | 357       | 357         | 98%         | 6e-122  | 66%   | <a href="#">XP_002272942.2</a> |
| <a href="#">short-chain dehydrogenase reductase 3b [Arachis ipaensis]</a>                                 | 357       | 357         | 98%         | 6e-122  | 67%   | <a href="#">XP_016205705.1</a> |
| <a href="#">short-chain dehydrogenase reductase 3b-like [Manihot esculenta]</a>                           | 355       | 355         | 98%         | 2e-121  | 68%   | <a href="#">XP_021631550.1</a> |
| <a href="#">LOW QUALITY PROTEIN: short-chain dehydrogenase reductase 3b-like [Sesamum indicum]</a>        | 355       | 355         | 97%         | 3e-121  | 70%   | <a href="#">XP_020550312.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like isoform X2 [Lupinus angustifolius]</a> | 355       | 355         | 98%         | 4e-121  | 66%   | <a href="#">XP_019440671.1</a> |
| <a href="#">short-chain dehydrogenase reductase 3b [Arachis duranensis]</a>                               | 355       | 355         | 98%         | 6e-121  | 66%   | <a href="#">XP_015968845.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Fragaria vesca subsp. vesca]</a>      | 354       | 354         | 98%         | 8e-121  | 67%   | <a href="#">XP_011467031.1</a> |

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|---|-----------|-------------|-------------|---------|-------|--------------------------------|
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Nelumbo nucifera]</a>                 | 354       | 354         | 98%         | 1e-120  | 66%   | <a href="#">XP_010243159.1</a> |
| <a href="#">hypothetical protein CDL15_Pgr009999 [Punica granatum]</a>                                    | 353       | 353         | 98%         | 1e-120  | 66%   | <a href="#">OWM80021.1</a>     |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b [Beta vulgaris subsp. vulgaris]</a>         | 353       | 353         | 97%         | 2e-120  | 69%   | <a href="#">XP_010679442.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like isoform X1 [Lupinus angustifolius]</a> | 353       | 353         | 97%         | 2e-120  | 66%   | <a href="#">XP_019440669.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Citrus sinensis]</a>                  | 352       | 352         | 96%         | 3e-120  | 67%   | <a href="#">XP_006492460.1</a> |
| <a href="#">hypothetical protein TSUD_343250 [Trifolium subterraneum]</a>                                 | 352       | 352         | 98%         | 7e-120  | 64%   | <a href="#">GAU11334.1</a>     |
| <a href="#">putative NAD(P)-binding Rossmann-fold superfamily protein [Helianthus annuus]</a>             | 352       | 352         | 99%         | 8e-120  | 66%   | <a href="#">OTF91591.1</a>     |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like isoform X2 [Cicer arietinum]</a>       | 352       | 352         | 98%         | 8e-120  | 65%   | <a href="#">XP_004494457.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like isoform X1 [Cicer arietinum]</a>       | 352       | 352         | 98%         | 1e-119  | 65%   | <a href="#">XP_004494456.1</a> |
| <a href="#">hypothetical protein CISIN_1g046931mg [Citrus sinensis]</a>                                   | 350       | 350         | 96%         | 2e-119  | 67%   | <a href="#">KDO86849.1</a>     |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b [Eucalyptus grandis]</a>                    | 350       | 350         | 98%         | 2e-119  | 66%   | <a href="#">XP_010038318.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Prunus mume]</a>                      | 350       | 350         | 98%         | 2e-119  | 68%   | <a href="#">XP_008227892.1</a> |
| <a href="#">Sex determination protein tasselseed-2 [Glycine soja]</a>                                     | 350       | 350         | 98%         | 2e-119  | 64%   | <a href="#">KHN14157.1</a>     |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Ziziphus jujuba]</a>                  | 350       | 350         | 99%         | 3e-119  | 65%   | <a href="#">XP_015891764.1</a> |
| <a href="#">hypothetical protein CICLE_v10023411mg [Citrus clementina]</a>                                | 350       | 350         | 99%         | 3e-119  | 65%   | <a href="#">XP_006444587.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Prunus mume]</a>                      | 350       | 350         | 98%         | 3e-119  | 68%   | <a href="#">XP_008227805.1</a> |
| <a href="#">adh_short_C2 domain-containing protein [Cephalotus follicularis]</a>                          | 349       | 349         | 98%         | 5e-119  | 65%   | <a href="#">GAV81370.1</a>     |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Vigna angularis]</a>                  | 349       | 349         | 98%         | 6e-119  | 64%   | <a href="#">XP_017417820.1</a> |

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| <a href="#">hypothetical protein PHAVU_001G216200g [Phaseolus vulgaris]</a>                         | 349       | 349         | 98%         | 7e-119  | 64%   | <a href="#">XP_007163219.1</a> |
| <a href="#">hypothetical protein DCAR_002926 [Daucus carota subsp. sativus]</a>                     | 349       | 349         | 95%         | 8e-119  | 67%   | <a href="#">KZN10270.1</a>     |
| <a href="#">unknown [Glycine max]</a>   | 349       | 349         | 98%         | 9e-119  | 63%   | <a href="#">ACU22781.1</a>     |
| <a href="#">hypothetical protein B456_001G146400 [Gossypium raimondii]</a>                          | 348       | 348         | 98%         | 1e-118  | 68%   | <a href="#">KJB06840.1</a>     |
| <a href="#">short-chain dehydrogenase reductase 3b-like [Cajanus cajan]</a>                         | 348       | 348         | 98%         | 1e-118  | 65%   | <a href="#">XP_020213743.1</a> |
| <a href="#">short-chain dehydrogenase reductase 3b-like [Glycine max]</a>                           | 348       | 348         | 98%         | 2e-118  | 63%   | <a href="#">NP_001304359.1</a> |
| <a href="#">hypothetical protein LR48_Vigan03g274800 [Vigna angularis]</a>                          | 348       | 348         | 99%         | 2e-118  | 64%   | <a href="#">KOM39366.1</a>     |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Vigna radiata var. radiata]</a> | 348       | 348         | 98%         | 2e-118  | 64%   | <a href="#">XP_014495424.1</a> |
| <a href="#">short-chain dehydrogenase/reductase [Medicago truncatula]</a>                           | 347       | 347         | 98%         | 8e-118  | 65%   | <a href="#">XP_003626027.1</a> |
| <a href="#">short-chain dehydrogenase reductase 3b-like [Chenopodium quinoa]</a>                    | 346       | 346         | 98%         | 1e-117  | 66%   | <a href="#">XP_021768648.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b [Ricinus communis]</a>                | 345       | 345         | 99%         | 2e-117  | 65%   | <a href="#">XP_015572322.1</a> |
| <a href="#">hypothetical protein POPTR_0014s11070g [Populus trichocarpa]</a>                        | 347       | 347         | 96%         | 2e-117  | 66%   | <a href="#">XP_002320953.2</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b [Glycine max]</a>                     | 345       | 345         | 97%         | 4e-117  | 64%   | <a href="#">XP_003554568.1</a> |
| <a href="#">short chain alcohol dehydrogenase, putative [Ricinus communis]</a>                      | 344       | 344         | 97%         | 6e-117  | 66%   | <a href="#">EEF47199.1</a>     |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Ipomoea nil]</a>                | 344       | 344         | 97%         | 8e-117  | 64%   | <a href="#">XP_019163449.1</a> |
| <a href="#">Short-chain dehydrogenase/reductase SDR [Corchorus olitorius]</a>                       | 343       | 343         | 98%         | 1e-116  | 68%   | <a href="#">OMO82212.1</a>     |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like isoform X1 [Cucumis sativus]</a> | 340       | 340         | 98%         | 2e-115  | 63%   | <a href="#">XP_004135972.1</a> |

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|---|-----------|-------------|-------------|---------|-------|-------------------------------------|
| <a href="#">short-chain dehydrogenase reductase 3b-like [Chenopodium quinoa]</a>                    | 340       | 340         | 98%         | 3e-115  | 68%   | <a href="#">XP_02176986<br/>2.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Pyrus x bretschneideri]</a>     | 335       | 335         | 98%         | 1e-113  | 67%   | <a href="#">XP_00936717<br/>5.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Lupinus angustifolius]</a>      | 335       | 335         | 98%         | 2e-113  | 62%   | <a href="#">XP_01941828<br/>6.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Cucumis melo]</a>               | 335       | 335         | 98%         | 3e-113  | 64%   | <a href="#">XP_01690266<br/>4.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Nicotiana sylvestris]</a>       | 334       | 334         | 99%         | 4e-113  | 65%   | <a href="#">XP_00979398<br/>3.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Cucumis sativus]</a>            | 333       | 333         | 99%         | 1e-112  | 63%   | <a href="#">XP_00413614<br/>5.2</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like isoform X2 [Cucumis sativus]</a> | 332       | 332         | 97%         | 5e-112  | 63%   | <a href="#">XP_01165941<br/>1.1</a> |
| <a href="#">Short-chain dehydrogenase/reductase SDR [Macleaya cordata]</a>                          | 332       | 332         | 98%         | 6e-112  | 64%   | <a href="#">OVA13550.1</a>          |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Nicotiana attenuata]</a>        | 331       | 331         | 99%         | 9e-112  | 64%   | <a href="#">XP_01924687<br/>6.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Vitis vinifera]</a>             | 330       | 330         | 98%         | 3e-111  | 64%   | <a href="#">XP_01907651<br/>2.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Nicotiana tomentosiformis]</a>  | 328       | 328         | 99%         | 8e-111  | 64%   | <a href="#">XP_00962056<br/>4.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Pyrus x bretschneideri]</a>     | 329       | 329         | 96%         | 8e-111  | 65%   | <a href="#">XP_00936314<br/>3.1</a> |
| <a href="#">hypothetical protein TSUD_343210 [Trifolium subterraneum]</a>                           | 328       | 328         | 98%         | 9e-111  | 62%   | <a href="#">GAU11330.1</a>          |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like isoform X1 [Malus domestica]</a> | 328       | 328         | 98%         | 1e-110  | 66%   | <a href="#">XP_00834863<br/>0.1</a> |
| <a href="#">short-chain dehydrogenase reductase 3b [Arachis duranensis]</a>                         | 327       | 327         | 99%         | 6e-110  | 63%   | <a href="#">XP_02098202<br/>0.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Nicotiana attenuata]</a>        | 326       | 326         | 98%         | 9e-110  | 64%   | <a href="#">XP_01923913<br/>2.1</a> |
| <a href="#">short-chain dehydrogenase/reductase [Medicago truncatula]</a>                           | 326       | 326         | 98%         | 1e-109  | 61%   | <a href="#">XP_00362602<br/>6.1</a> |

| Description   | Max score | Total score | Query cover | E value | Ident | Accession                      |
|---|-----------|-------------|-------------|---------|-------|--------------------------------|
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Malus domestical]</a>           | 325       | 325         | 98%         | 1e-109  | 66%   | <a href="#">XP_008381460.1</a> |
| <a href="#">short-chain dehydrogenase reductase 3b [Arachis ipaensis]</a>                           | 325       | 325         | 99%         | 1e-109  | 63%   | <a href="#">XP_016205706.1</a> |
| <a href="#">short-chain dehydrogenase reductase 3b [Nicotiana attenuata]</a>                        | 325       | 325         | 98%         | 2e-109  | 64%   | <a href="#">OIT21250.1</a>     |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like isoform X2 [Malus domestica]</a> | 325       | 325         | 98%         | 3e-109  | 66%   | <a href="#">XP_017181367.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Cucumis sativus]</a>            | 324       | 324         | 98%         | 6e-109  | 62%   | <a href="#">XP_004136143.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Capsicum annuum]</a>            | 322       | 322         | 99%         | 2e-108  | 63%   | <a href="#">XP_016557592.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Capsicum annuum]</a>            | 321       | 321         | 99%         | 6e-108  | 62%   | <a href="#">XP_016575777.1</a> |
| <a href="#">hypothetical protein AALP_AA4G260500 [Arabis alpina]</a>                                | 321       | 321         | 98%         | 8e-108  | 62%   | <a href="#">KFK37464.1</a>     |
| <a href="#">short-chain dehydrogenase reductase 3b [Amborella trichopoda]</a>                       | 320       | 320         | 98%         | 1e-107  | 63%   | <a href="#">XP_006841570.2</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Malus domestical]</a>           | 320       | 320         | 98%         | 1e-107  | 68%   | <a href="#">XP_008343196.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Tarenaya hassleriana]</a>       | 320       | 320         | 99%         | 1e-107  | 63%   | <a href="#">XP_010523896.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Vigna angularis]</a>            | 320       | 320         | 98%         | 2e-107  | 61%   | <a href="#">XP_017417999.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Nicotiana sylvestris]</a>       | 319       | 319         | 98%         | 3e-107  | 63%   | <a href="#">XP_009782046.1</a> |
| <a href="#">PREDICTED: short-chain dehydrogenase reductase 3b-like [Cucumis melo]</a>               | 319       | 319         | 98%         | 5e-107  | 62%   | <a href="#">XP_008461393.1</a> |