

Additional Data File 2.

The *Astx* cDNA clone from the microarray in Clustal alignment with the *Asty* exon 1 – exon 4 sequences obtained from cloned RTPCR products using the primers highlighted in blue type. One of the *Asty* clones lacks exon 3. The position of the exon 4 open reading frame for *Astx* is highlighted in yellow.

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Astx    ATTCTCTATCTGATGGAGGGCAAAAATTTCCATTTAACTGTGTCTCACATCGAACTCCTCATTTGAAAGGGGCACCAGAATGACTCTTTTTGTTCCAGCG 100
Astx    GTTCTCAAATTCACATCCTCTGTGGAAGAGGTCTGTAAATGTCATCCTGTCATACCAGGGCTTCAGTGCCTCTCCCTCTGCCTATGGGAGCCTCAGACAC 200
Astx    ACCACATCTAGTCATAAATATTTCTCTTCCCCCTCTGTCTATTGAAGGCAACAAACCCTTCTCCTAATGCCCTATTGGACTGAAATATTTCTTTTTTT 300
Astx    TCAGTGGTGGACTCATACCTACCCCTCTCTTGCAAAGTGTAATAGATCTTGTCTTATTGACTATGTGTGCCTGCTATATCCCAACTGTCTAAGATTACTT 400
Astx    CCAAACCTTCTTCTGCTACAAAATATTCGGAGACATTCCAATATTCAAGAAAAGTGGCCTTGCTCTTTTGTGTCATCTGACTAAAGGCTTCATAGACCAAAGA 500
Asty1  -----GGCCTTGCTCTTATGTCATCTGACTAAAGGTTTCATAGACCAAAGA 46
Asty2  -----GGCCTTGCTCTTATGTCATCTGACTAAAGGTTTCATAGACCAAAGA 46
*****
Astx    TAACCATCCAACCTGTTGGAATACTGAAACAATTGCTGCCTGCTGTCTACACACCACATAAAATATGTGGATATTCTAAATTTTGCAAAAAAGAATTGGA 600
Asty1    TAACCATCCAACCTGTTGGAATACTGAAACAATTGCTGCCTGCTGTCCACACACCACATAAAATATGTGGATTTTCGTAAATTCTGCAAAAAAGGTTTGA 146
Asty2    TAACCATCCAACCTGTTGGAATACTGAAACAATTGCTGCCTGCTGTCCACACACCACATAAAATATGTGGATTTTCGTAAATTCTGCAAAAAAGGTTTGA 146
*****
Astx    AGCTGATCAAGCAATACTGGTACTTCTCTGCTCCAGAAGACAGAGATACCCTGGCTTCCATGCAGAGGAATGTGTGGATGGACATATATTTATGGAAGA 700
Asty1    AGCTGATCAATCAATACTGGAACCTCCTCTTCTCCAGAAGA - - - GACATCCTGGCCTCCATGCAGAGGAATGTGTGGATGGACATATATTTAAGGAAGA 242
Asty2    AGCTGATCAATCAATACTGGAACCTCCTCTTCTCCAGAAGA - - - GACATCCTGGCCTCCATGCAGAGGAATGTGTGGATGGACATATATTTAAGGAAGA 242
*****
Astx    CACTAAACCAGAGACTACTACATTACACCCTCTTAGAAGACTTCTAAGATTGTTGTCATGCTTACCACGGACATTTCAGATGATGTGTATTCTTGATTGTG 800
Asty1    CACTAAACCAGAACTACTACATTACACCCTCTTAGAAGACTTCTAAGATTGTTGTCATGCTTACCACAGACATTTCAGATGATGTGTATTGTTGATTGTG 342
Asty2    CACTAAACCAGAACTACTACATTACACCCTCTTAGAAGACTTCTAAGATTGTTGTCATGCTTACCACAGACATTTCAGATGATGTATATTGTTGATTGTG 342
*****
Astx    ATTTCAAGTTTGGAGCTGATGAAGGAACCCAGGAGATGAACATATGCCTGAGAAGA - - - ACTAGTGTGGAACGTGCAGCCAGGTTTTTGTAGAGTGCTCA 897
Asty1    ATTTGATGTTTGGACCTGATGAAGGAACCCAGGAGATGAACATATGCCTGAGAAGACGAACTAGTGTGGAACGTGCAGCCAGGTTTTTGTAGAGTGCTCA 442
Asty2    ATTTGATGTTTGGACCTGATGAAGGA - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 368
*****
Astx    GACTGCTTCCTGATCCGGCA - CCACATTTACTGCAGTGGACAGATGCTCTAGTCTCTGATGAGGAGTTGCTAGCTGTTAGGAAGTACCTGGAATGGGCTC 996
Asty1    GACTGATTCCTGATCTAGCAACCACATTTACTATAGTGGACAGATGCTCTAGTCTCTGATGAGGAGTTGCTAGCTGTTAGGAAGAACCTGAAATGGGCTC 542
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Asty2 -----
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Astx CACTGCATGAGGTTTGAAGTCTCCAGAGCAGCAAGGAGAGTGGGGAGTAGAACTCATC - - - TTTAGGGCACTCATCATCGATTGTTCCCAACCTTA 1093
Asty1 CACTGCATGAGGTTTGAAGTCTCCAGAGCAGCAAAGAGAGTGGGGAGTAGAACTCATC ATCTTTAGGTCACTCATCATCG ----- 622
Asty2 -----GTTTGAAGTCTCCAGAGCAGCAAAGAGAGTGGGGAGTAGAACTCATC ATCTTTAGGTCACTCATCATCG ----- 437
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Astx GTATACAGACATGGTTGGTTGAACACAAACCTGTCAGGCTGATAAAGCACTAGACATCTACTAACGTCCTTGAAACC ATGTTCAGATTGCTGCACATCCT 1193

Astx CCTGAAGATGCCACGGATGACATGGTTCCTTGTGATTTTGTTCCTTCTTGTGTTGCTGTTTTCTTTAACTTTTGAAGAGGATACTTTATTAGCATGT 1293

Astx TGCTATGTTAGTCATCTCCTGGCATTAGAAACCAACATCCCACTGCTTAAATGTTTTACATTTCTACTCTTTTTGGAAAAACATAATGAATGCACATCAT 1393

Astx ATTTTTCCTATTGTTTCACACACATACCACTATGTAATTCAACTTTACAATTGTAATCATTTTGACCAACATTCAACAAGAATATAAAATTTTATGTGTAAA 1493

Astx AAA----- 1496