**Supplementary Data Figure 1**



HAS2-AS1 Corneal Epithelial (HCET) Transcript

 Exon 1

**AAAGGCAATCCCAGCCCAGACACGTGGGTTGGAGCAGCGTCGCGTTTCTGGGCAATTGCT**

**CCTGAGACCCAACAGGCAGCAACGGTCCCAAGGGTGAGGGAGTGGGCAGGGAGAGGCTGA**

**TGGGGCTTCTACACGTTCCCTCCCGTAGCTGGGCTGCTGCAGCTCGTTCGCCCCAGAGGC**

**GCGCGGTGTCCTTGAGTCCAAGTATTCAGCGCGGACGTTTGGGGGACGGAGGGAGAGGCG**

**CTAGGGGAACTGGCACCTAAGACTGTGTAATAGGACACAGGTCTTGCAAGTCCTCCTCCC**

**CAGGCACCGCCCCTGTGCTCCCAGCGCCTCTTTGCAGCTTTAATTATCCTTTCAGCGCCG**

**TTCCCCCGCGGCTGCGTTTCCGTGGTCAGAGGAAAAAGGCTCTTTCGCCTCCCGGTTCTC**

**ACCCTCATACAGACCCTCCTTTCAGACCCGCCCTCCTGTTCACAGGGACCCATTTCGGAG**

**CCCTGGCTCACGCTGGGCGGGAACTGCCGTGACGAATTCCCCCCAAGGTGTTGATTATCC**

**ATCCCAACCCAGCCTCTGGCTTCCCTCCCACCTCCACCCCAGCTCCCACAGGCCCCTCGC**

**CCCGTTCATCGGCTGGGCGCTCGAGACGGCGCCCCCAGATCTCCCACCGGGCAGTGTCCC**

**CAGCTGCAGCTGAGGAGAGAAGCGCCGGCGTGCGCGGTGCCACGTCGGAATTGGCTCTGG**

**GGACGCCGCAGCTGCCGAAGCGCAGCGCGCGGTCCCCACGCACGCCCTGCCTCCGGGCGG**

**CCGGCGGGCTGGCCCGGCGAGGAGAGGAGGGATGCGCGCCCTCCTCCCGCTCCTATCTGC**

**GGGTGCCACCGCCTGCGTCAGGGACCCCTGGCCCGATCTTTCTGCCCCCGATAACAGAAAATCTCTTTTTCGTCTTAAAAAAAAAAAAAAAAAAAAAAAAAGCCTGTGGAAGACTCAGCAGAACCCAGGAAGCGCAGAATTGGGAGAAAAGTCTTTGGCTGGGGCTGTTTCAAGTCTCTGGTTCAATGGGCTGCTCGAAGCCAGGACTGGGTAATTCTTTCCAGACGTCTTGACTTCTCCTTCCCCGCCGTTGTTGCCCTTCTGCCTCCTCCAACTTAAGGGGGTCTTAACAAGTGAGCTGGATCTTCTGAGGGGTGGACTTCTTTGGAACTCGACAGGACCTTGAAGACTGGGTTCTTAGTCCTTATCACATATATGGGCTATAATGAATAAGTCTAAACAGAAAAGTCGAATAAACTGGAAATGATGCTTTCATCACGTCGCACAAGAAAAACACATTTGTTGTTTCTCGCCTCTTGTAATTCATGACCCATAAGACAAAAGTAAAATGTTCTCTGACTGCAAATG**GAGCTGTTTGGATCAGAAGATGACATCCTTTCACCCATCCCTTTCAGGTTTTGACATCCTAAAATGTACCTTATGGAACCCATACCTGTTATGTTTTCACCTGTACAAGGCAACAGAGAAAACATGGTAGTTTTTACTTGAGTAGATGTGACTTAGCAATATGTTGTTGCTGACCTCCATCCCACAGCACAAAACATATGTTTATATGTCTGACAGACAAAGTATCCAGAACAAGGATTTAGTACCTTCATAATCCTCTGTATATGTGGTTCTAGAACTTTTGGTAAAGAAACTCTTTATACTCTTATTAATTATTGAGAACCTCAAAAAAAGTTTATATGTTATATGTATCAATATTTACCACATTAGACATTAAAGCTGACTTAAAAAGTTAAAATACTTAAGTCATTTGAAGTAATAATAAATGC

 Exon 3

 Exon 4

 Exon 5

 Exon 2

**Reference sequence:** <http://useast.ensembl.org/Homo_sapiens/Gene/Summary?db=core;g=ENSG00000248690;r=8:121639293-121644693>



 Exon 1

**GGGAGAAAGAAGGGAAGGGTAGGAAGGTAAGGACAGTTGTGGGATGAATTTTCCGTACAC AGTGGAAATCCTTGTTTTCTGACTCCGGAGCCCCTTTGACGCTCGGGAAGATGCCCAGTG GAAAAGTACACCCCGGGACAATCAGCTTTCCTTGGCCACGCAAGTTACCTGTGCGCCCAG AGAGGCAGCGGATTTCACCGGATGATTAAAACCCAGGGGAATTCAAAGTTCACCCAAACG CGTCTGTATAACGTACCTTGTTCAGCTCCTGCTCATAGACTCGTCCTCCGCCTGTCTGTG TGGTCCCGGAGGGTCGTGGAAGGAAGTTTCCAAAATTGAG*GTGTGTATCAGAAAAAAAAA***

 Exon 3

 Exon 2

***AAAAGAGTGGAAAGCATCAGAAAAGCAAGGCTTATCTGAAAATAAAATTGTTTTGGGGTG***

 Exon 4

***AGCCAAAAGCCAAGGCCTGATGTTCAATGAAATACTCAAAGCCTGAGGATTTGGATTTAA***

***AACCATCAGCTACTTTGGCTGCCTTCATGCCACCATGTTCCCTGTCACGAGATTAATGGG***

 Exon 5

***CTAAATTTCTGAAACTGCAAGCAAGTCTCATTTAAAT***AGCTTAATACAGTGCTCTATACT

GCAGCACCATTCTGTGCATGAGGATGCGGGTTGAAAAAGAAGGAAGAATGAGAGGACCAG

TCGTCACAAGCTCCTGTGTCCAAGTCTTCCCAGCCATGATGGGGATACCCTCGGACGGTG

AACCAAGATAAATAAACCCCTTCTTTCCTGACGTCCTCCTATCAGGGTGTTTCATCA CAGCAATGTGACAATAAATCCCAAGCCACTCTCAATAAATCACTCTCATGCCACATCTTC TAATGGAAGAGTCTACCCTTCTTAAGAATAACCTCTTTTGTTATTTCAGTTTCCCATATC ATTTTTCTTCCTTTGCTTTCCTGCTCAAAATTAATCTGTGTCATCTCTTCTACTGCCTGT CGGCTGCTACTGTGGGGAGGAGAGGATAAAATTCACCCAGATGTGAGCATCAGAAATGGA AAGCCAAGTGATAGGGCTTGACTGATGTCACCAAATGGCCAATGAAGAGTCAGTCTTCTG GCTCCTTCTCCTTGATACTACCTGACACCTCCCCTGCCCTCATTTGCTTTCTGAGCAATA TTTTATCCTCCATTATCAACTTCTACCCATCCTCCCACTGTGGCTTTGCTGCTCATAGAA GGAAATGCAAGCAGAGCTGTCCAGTTCCTGTTTCATAAGTGCTGACAACAGA

**Reference sequence:**

<http://useast.ensembl.org/Mus_musculus/Transcript/Summary?db=vega;g=OTTMUSG00000036746;r=15:56689944-56694460;t=OTTMUST00000094256>