Supporting Information

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SI Text

The sequence of the HN 3′UTR cDNA is 100% identical to a sequence in the mitochondrial 16S ribosomal RNA gene and 88.4% identical to positions 21947595–21948118 on nuclear chromosome 17. To determine whether the source of the HN RNA fragment is mitochondrial or nuclear, 3 pairs of primer were used, 1 specific for mitochondrial *HN* and the others for nuclear *HN*. The PCR results showed that all of the primers amplified the *HN* gene, suggesting that the HN 3′UTR sequences could be located in either the mitochondrial or nuclear chromosome. However, the RT-PCR results showed that only the primers for the mitochondrial *HN* produced amplification band, indicating that only the mitochondrial *HN* gene was transcribed. Other researchers showed that HN RNA could be transcribed in standard HeLa cells but not in HeLa cells that lack mitochondrial DNA (1). The source of the hPSF-binding RNA could be mitochondrial HN RNA that translocated to the nucleus, or mitochondria that contaminated the nuclear extract used for the experiment.

Sequences of 5 hPSF-binding RNA Fragments. L1PA16 RNA Fragment (190 nt).

CUUCUGGAAAGGACAUGAUUUCAUUCUUUUUU-AUGAUUGCAUACUAUAUUCCAUGGUGUACAUA-UAUCAUAUAUUCUUUAUCCAGUCCACCACUGAU-GGGCACCUAGGUUGAUUCCAUGUCUUUUCUAC-UGUGAAUCAUGCUGCCACGAACAUGUGCGUGUC-UUUUGGGUAGAAUGAUUUAUUUCUUUUG

MALAT-1 RNA Fragment (293 nt). GGCUUUUGGAAGAGUUA-GAAGAAUUUGGAAGGCCUUAAAUAUAGUAGCU-UAGUUUGAAAAAUGUGAAGGACUUUCGUAACG-GAAGUAAUUCAAGAUCAAGAGUAAUUACCAAC-UUAAUGUUUUUGCAUUGGACUUUGAGUUAAGA-UUAUUUUUUAAAUCCUGAGGACUAGCAUUAAUUG-ACAGCUGACCCAGGUGCUACACAGAAGUGGAU-UCAGUGAAUCUAGGAAGACAGCAGCAGACAGG-AUUCCAGGAACCAGUGUUUGAUGAAGCUAGGA-CUGAGGAGCAAUCGAGCA

HN RNA Fragment (236 nt). CACAGCAAGACGAGAAGAC-CCUAUGGAGCUUUAAUUUAUUAAUGCAAACAG-UACCUAGCAAACCCACAGGUCCUAAACUACCAA-ACCUGCAUUAAAAAUUUCGGUUGGGGCGACCU-CGGAGCAGAACCCAACCUCCGAGCAGUACAUGC-UAAGACUUCACCAGUCAAAGCGAACUACUAUAC-UCAAUUGAUCCAAUAACUUGACCAACGGAACAA-GUUACCCUAGGGAUAACAGCG

Unidentified RNA Fragment (239 nt). UGUGUGUGUGUAUGU-GAGAGAGAGAGAGAGAGAGCCCUCUCUUCAUGG-UCUUCCUCAGCUCCAUUUGCCAGAGUUUGACAC-GAGUGACUGUAUUUUGAAUCUUACAACUUUCA-CAGAUUACAUAUAUUUUAAGAAAAUUCCUACU-UAAGCUAGAUGAGCUUUCUCUUUCAGAGGUCC-UGUGACAAUUCAUAAAUUUAAUGUUUGCAUUU-AAAUCUUACUUGCUUAUUAUGAGCAUUGUU

MER11C RNA Fragment (162 nt). UAUUUGUACACUCCAUC-CCCUUUGAAAAUCACUAAUAAAAACUUGCUGAU-UUUGTGGCUUGGGGGCAUCAGGGAACCUGCCAA-CAUGGGAUGUUUCCCCUGGAUACCCAGCUUUAA-AAUUUCUCUCUUGUACUCUCCCUUUAUUUCACA-GACCAGCCAACAG

1. Tajima H, *et al*. (2002) Evidence for in vivo production of humanin peptide, a neuroprotective factor against Alzheimer's disease-related insults. *Neuroscience Lett* 324:227–231.