

Elimination of 01/A'-A0 pre-rRNA processing byproduct in human cells involves cooperative action of two nuclear exosome-associated nucleases: RRP6 and DIS3

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SUPPLEMENTAL MATERIAL

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SUPPLEMENTAL TABLE 1. Oligonucleotides used in this study.

Oligonucleotide	Sequence (5'-3')	Purpose
Northern blot probes and oligos for primer extension		
h5ETS	CGGAGGCCCAACCTCTCCGACGACAGGTGCCAGAGGACAGCGT GTCAGC (human rDNA: 50-1)	probe for northern blot
hA'	GGTCCCGTTTCGCCACGAACGTCCGCCCTCG (human rDNA: 502-472)	probe for northern blot; primer extension oligo
hA0	TCACGCGCCGGACAGAG (human rDNA: 1747-1731)	probe for northern blot; primer extension oligo
hITS1a	CCTCGCCCTCCGGCTCCGTTAATGATC (human rDNA: 5547-5520)	probe for northern blot
hITS1b	AGGGGTCTTTAAACCTCCGCGCCGGAACGCGCTAGGTAC (human rDNA: 6159-6121)	probe for northern blot
hITS2a	CTGCGAGGGAACCCCGAGCCGCGCA (human rDNA: 6845-6821)	probe for northern blot
hITS2b	GCGCGACGGCGACGACACCGCGCGTC (human rDNA: 7591-7564)	probe for northern blot
h5S	CATCCAAGTACTAACCAGGCC	probe for northern blot
h5.8S	TCCTGCAATTCACATTAATTCTCGCAGCTAGC	probe for northern blot
probe a	CCTCTCAGATCGCTAGAGAA (human rDNA: 1428-1409)	probe for northern blot
probe b	GGCAGCGCTACCATAACGGA (human rDNA: 1497-1478)	probe for northern blot
probe c	GGCGGAACCCCTCGCTTCT (human rDNA: 1573-1556)	probe for northern blot
probe d	GCCGCACTCGGCCACCACCG (human rDNA: 1601-1582)	probe for northern blot
probe e	ACTCGGAAGGGGAGGCG (human rDNA: 1639-1622)	probe for northern blot
Primers for qRT-PCR		
D3qRTfwd	TGTGGCATGCTTTCCAAGTCTG (DIS3 ORF: 1069-1090)	forward primer (DIS3)
D3qRTrev	CCTTCTAATGTGGAAGCCTGTCTG (DIS3 ORF: 1184-1161)	reverse primer (DIS3)
R6qRTfwd	TCTCTAAGGAAAGGCGGGAACG (RRP6 ORF: 647-668)	forward primer (RRP6)
R6qRTrev	TTGCTCAACCTGCTGGGTCTC (RRP6 ORF: 753-732)	reverse primer (RRP6)
GAPDH_F	ATCAAGAAGGTGGTGAAGCA	forward primer (GAPDH)
GAPDH_R	CATACCAGGAAATGAGCTTG	reverse primer (GAPDH)
Oligonucleotides used in the cRT-PCR procedure		
RT primer	AAGTCGACAACCACTGGAGGCGACAGG (human rDNA: 700-674)	primer for reverse transcription
primer fwd	AGAGGACCCTCCTCCGCTTCC (human rDNA: 1514-1534)	forward PCR primer
primer rev 1	ACCCACGCCTTCCCACACG (human rDNA: 582-563)	reverse PCR primer (first-round)
primer rev 2	GGAGCGAGAAGGACGGTCCC (human rDNA: 516-497)	reverse PCR primer (second-round)
M13 Forward (-20) Primer	GTAAAACGACGGCCAG	primer for sequencing
M13 Reverse Primer	CAGGAAACAGCTATGAC	primer for sequencing
Oligonucleotides used in the 3'-RACE-seq procedure		
RA3	<u>TGGAATTCTCGGGTGCCAAGG</u>	adapter oligonucleotide
RTP	<u>GCCTTGGCACCCGAGAATTCCA</u>	primer for reverse transcription
RA5_1428	<u>GTT</u> CAGAGTTCTACAGTCCGACGATC TTCTCTAGCGATCTGAGAGG (human rDNA: 1409-1428)	forward PCR primer (first-round)
RA5_1303	<u>GTT</u> CAGAGTTCTACAGTCCGACGATC CGCAGGTGTTTCCTCGTACC (human rDNA: 1284-1303)	forward PCR primer (first-round)
RP1	AATGATACGGCGACCACCGAGATCTACAC GTT CAGAGTTCTACA GTCCGA	forward PCR primer (second-round)
RPI_X	CAAGCAGAAGACGGCATAACGAGAT NNNNNN GTGACTGGAGTT CCTTGGCACCCGAGAATTCCA	reverse PCR primer with RNA-seq index