

A Total RNA sample

3' Non-phosphorylated transcripts (5'-OH)

PPP* 3' Primary transcripts

P 3' Mono-phosphorylated transcripts
(specific targets for XRN1 digestion)

YRN1

B

Diagram B illustrates the action of the RppH protein on a DNA duplex. The RppH protein, represented by a grey diamond, is shown cleaving the 3' terminal pyrophosphate (PPP*) of the DNA strand, releasing inorganic pyrophosphate (PPi) and leaving a phosphate group (P*) on the DNA strand. The DNA duplex is shown with a grey strand and a red strand, both labeled 3' at the right end.

C

Large excess of RNA oligo **Rp6**:

T4 RNA ligase 1

D

Are blocked by the 5'-OH

Get a 5' extension with the Rp6 sequence

E

PPP 3' B P* 3' B

Rp6

F

5' 5' 5'

cRp6 *

G

A XXX cRp6 * B

H

50 bp

XXX XXX *

3' 5'