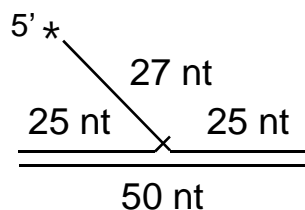


## Supplemental data

### A

Protein			Mph1		Pfh1		T-antigen		Mph1		Pfh1		T-antigen	
	-	+	+	++	+	++	+	++	+	++	+	++	+	++
Fen1	-	+	+	+	+	+	+	+	-	-	-	-	-	-
Lanes	1	2	3	4	5	6	7	8	9	10	11	12	13	14

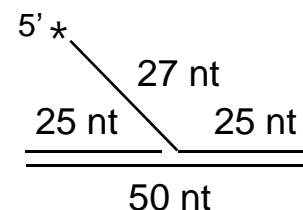
0.5 3.1 9.1 0.6 0.8 0.6 0.6



### B

Protein			Mph1		Pfh1		T-antigen		Mph1		Pfh1		T-antigen	
	-	+	+	++	+	++	+	++	+	++	+	++	+	++
Dna2	-	+	+	+	+	+	+	+	-	-	-	-	-	-
Lanes	1	2	3	4	5	6	7	8	9	10	11	12	13	14

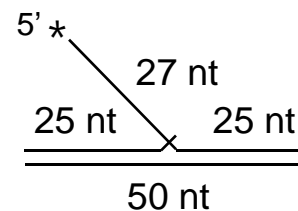
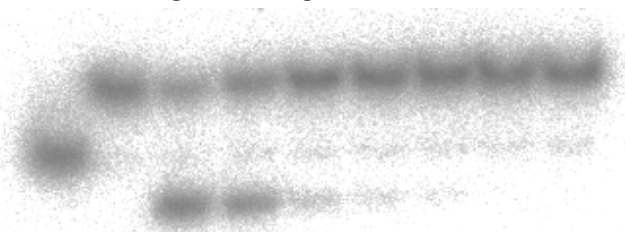
0.7 1.6 3.8 0.7 0.7 0.8 0.6



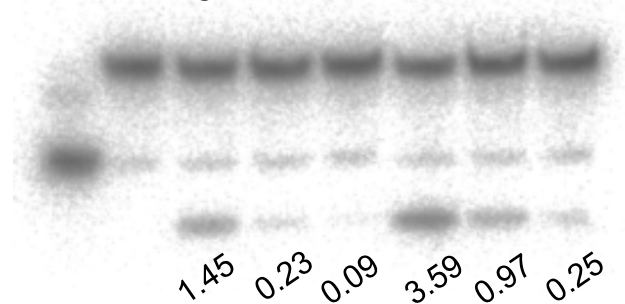
**Figure S1. Specificity of *S. cerevisiae* Mph1 in stimulation of Fen1 and Dna2** **A**, Fen1 endonuclease assay was performed in standard reaction condition at 30°C for 15 min. Fen1(8 fmol) was added (+) or omitted (-). Mph1, as a stimulating factor, and two non-specific helicases, *S. pombe* Pfh1 and SV40 T-antigen were included (+: 10 fmol, ++: 32 fmol) or omitted (-) in reactions. **B**, Dna2 endonuclease assay was performed as in panel A. Dna2 (2 fmol) was added (+) or omitted (-). Mph1 and two non-specific helicases, *S. pombe* Pfh1 and SV40 T-antigen were included (+: 10 fmol, ++: 32 fmol) or omitted (-) in reactions. B : boiled substrate. The substrate used are illustrated below the panel.

**A**

Fen1(fmol)	B	-	26	26	26	26	26	26	26
NaCl (mM)	75	75	75	100	125	150	175	225	275
Lanes	1	2	3	4	5	6	7	8	9

**B**

Mph1 (mM)		-	-	-	-	26	26	26
Fen1 (fmol)	B	-	26	26	26	26	26	26
NaCl (mM)	125	125	125	150	175	125	150	175
Lanes	1	2	3	4	5	6	7	8

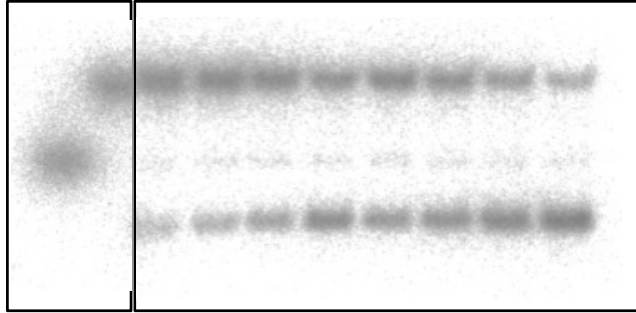


1.45 0.23 0.09 3.59 0.97 0.25

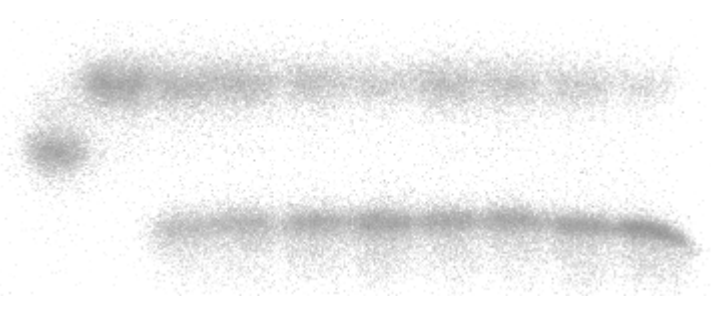
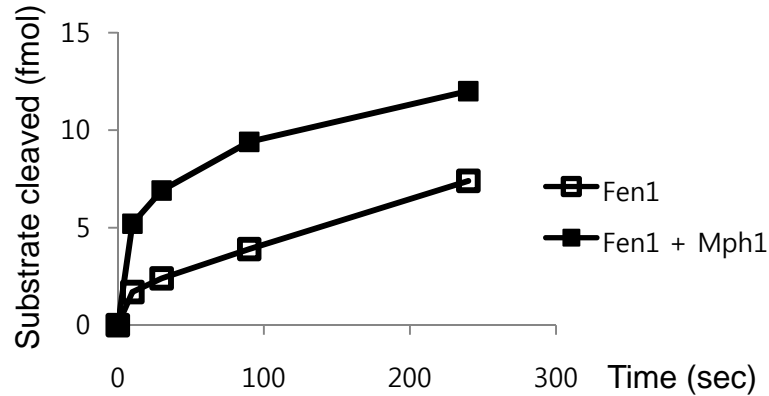
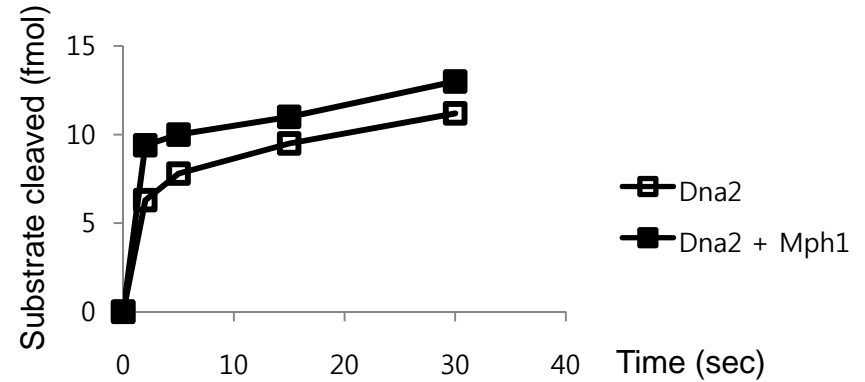
**Figure S2. Stimulation of higher amount of Fen1 in increased salt concentration by Mph1** **A**, Fen1 endonuclease assay was performed in various NaCl concentrations. Substrate used is illustrated on right side of the panel. **B**, Endonuclease assay was performed with Fen1 in higher concentration of NaCl (125~175 mM) in the presence or absence of Mph1. The amount of proteins used are indicated in the figure. B : boiled substrate.

**A**

Time (sec)	10	30	90	240	10	30	90	240		
Mph1 (fmol)	-	-	-	-	-	32	32	32	32	
Fen1 (fmol) B	-	26	26	26	26	26	26	26	26	
Lanes	1	2	3	4	5	6	7	8	9	10

**B**

Time (sec)	2	5	15	30	2	5	15	30		
Mph1 (fmol)	-	-	-	-	-	32	32	32	32	
Dna2 (fmol) B	-	15	15	15	15	15	15	15	15	
Lanes	1	2	3	4	5	6	7	8	9	10

**C****D**

**Figure S3. Stimulation of higher amount of Fen1 and Dna2 by Mph1** **A**, Fen1 endonuclease assay was performed with time-course (10~240 sec) in the presence or absence of Mph1. All additions are indicated in the figure and substrate used is illustrated in figure S1. **A. B**, Dna2 endonuclease assay was performed with time-course (2~30 sec) in the presence or absence of Mph1. All additions are indicated in the figure and substrate used is illustrated in figure S1. **B. C**, The amount of endonucleolytic product in panel **A** was plotted against time. **D**, The amount of endonucleolytic product in panel **B** was plotted against time.