

## **Supplementary Material**

### **Supplementary Tables**

**Table S1.** GSEA results of c2 reference gene sets for high MCM2 expression groups in HBV-related HCC patients of GSE14520 cohort.

**Table S2.** GSEA results of c5 reference gene sets for high MCM2 expression groups in HBV-related HCC patients of GSE14520 cohort.

**Table S3.** GSEA results of c2 reference gene sets for high MCM6 expression groups in HBV-related HCC patients of GSE14520 cohort.

**Table S4.** GSEA results of c5 reference gene sets for high MCM6 expression groups in HBV-related HCC patients of GSE14520 cohort.

**Table S5.** GSEA results of c2 reference gene sets for high MCM2 expression groups in HCC patients of TCGA cohort.

**Table S6.** GSEA results of c5 reference gene sets for high MCM2 expression groups in HCC patients of TCGA cohort.

**Table S7.** GSEA results of c2 reference gene sets for high MCM6 expression groups in HCC patients of TCGA cohort.

**Table S8.** GSEA results of c5 reference gene sets for high MCM6 expression groups in HCC patients of TCGA cohort.

### **Supplementary figure legends**

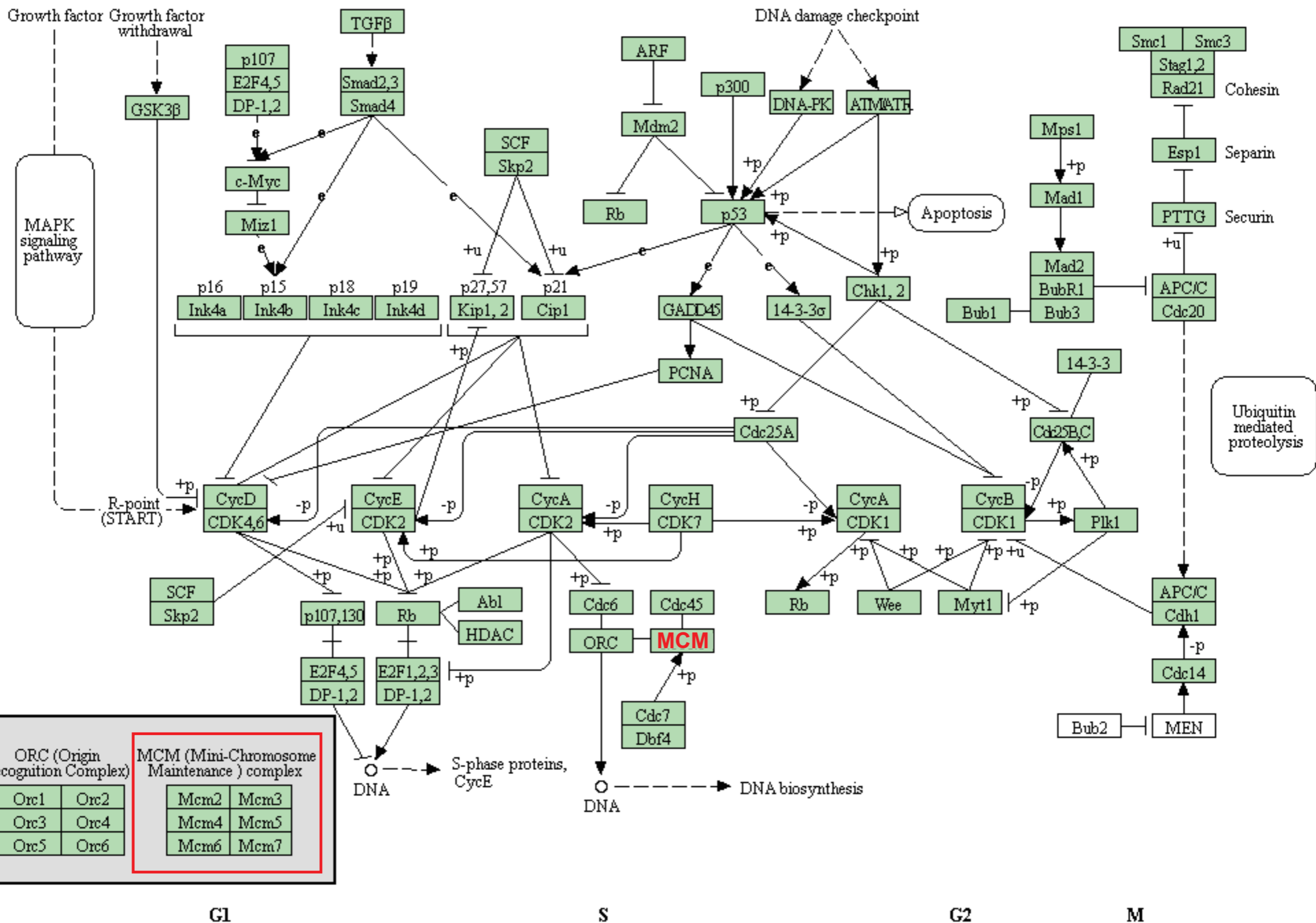
**Figure S1.** KEGG pathway map of MCM2–7 in cell cycle pathway.

**Figure S2.** KEGG pathway map of MCM2–7 in DNA replication pathway.

**Figure S3.** The GO terms directed acyclic graph of MCM2–7 .

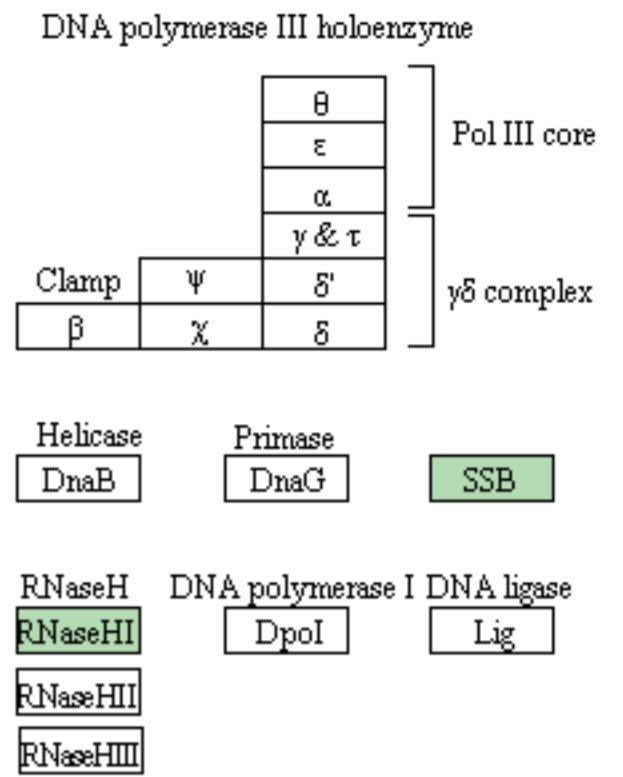
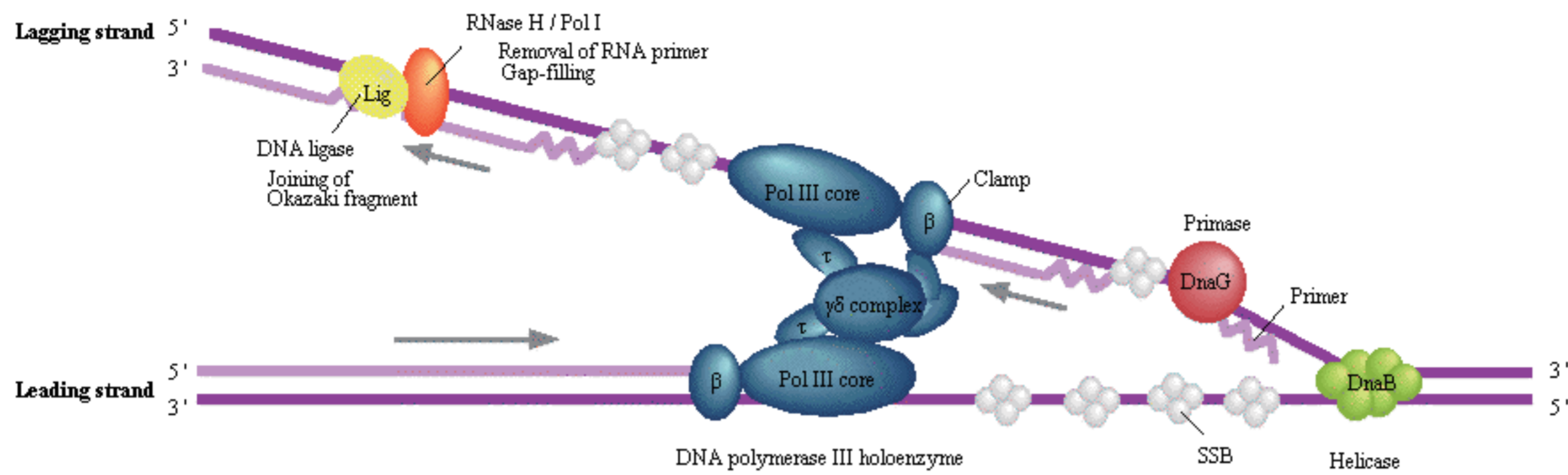
**Figure S4.** Gene expression levels of MCM2–7 in normal liver tissue and primary liver tumors, which analysis by MERAV.

CELL CYCLE

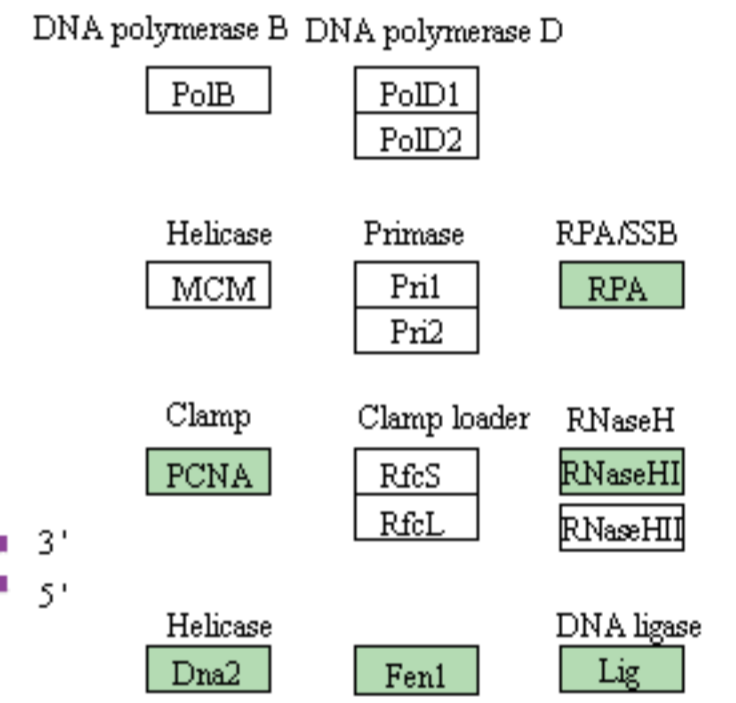
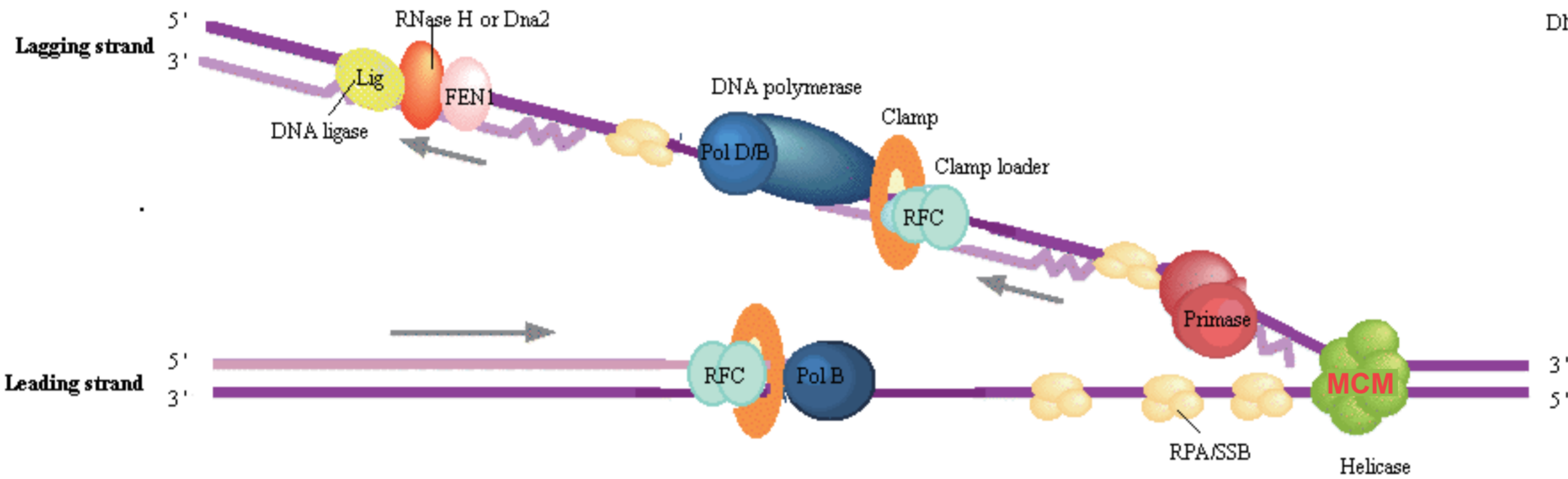


**DNA REPLICATION**

**Replication complex (Bacteria)**



**Replication complex (Archaea)**



**Replication complex (Eukaryotes)**

