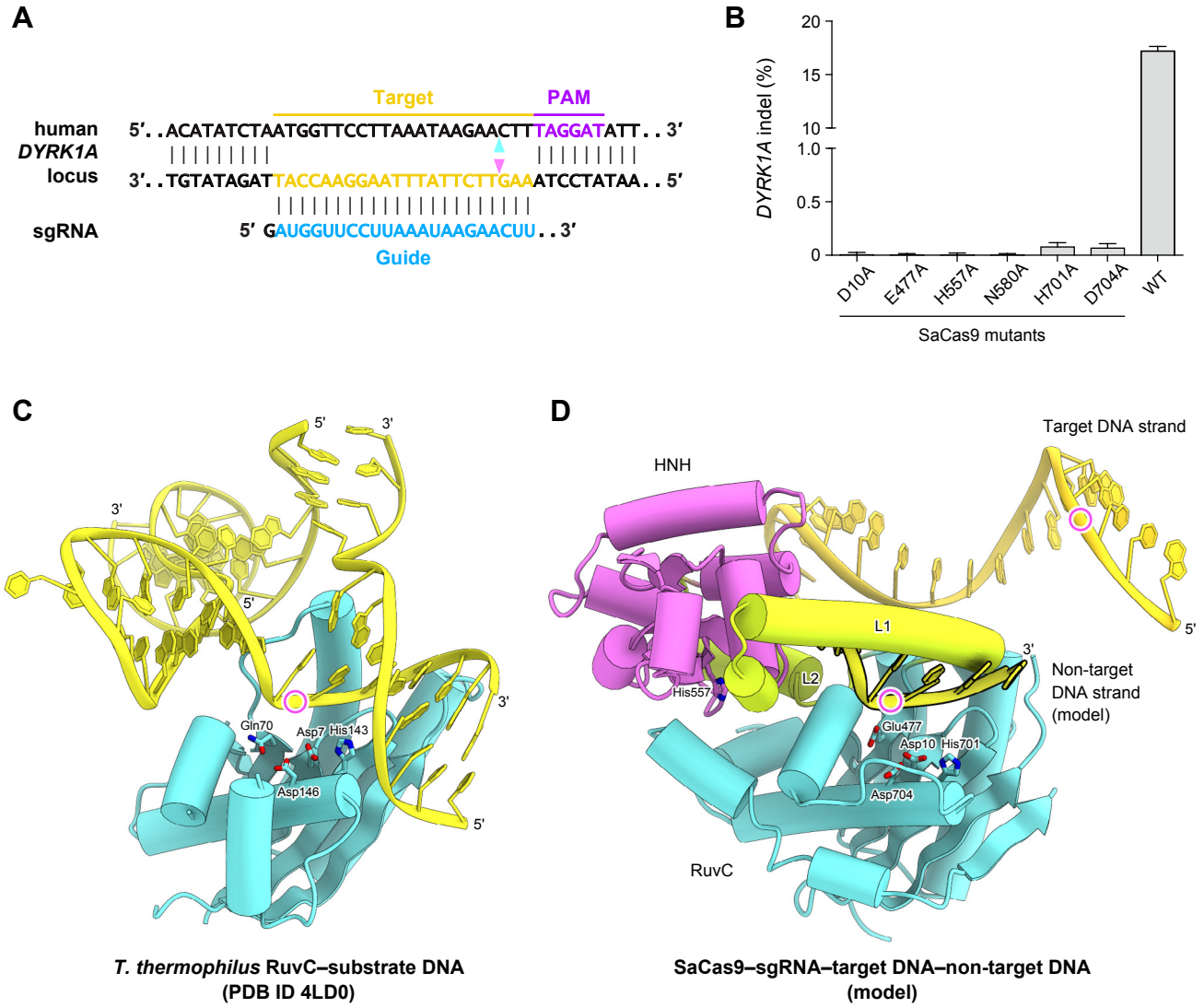
A
Target
PAM
human
DYRK1A
locus
5′..ACATATCTAATGGTTCCTTAAATAAGAACTTTAGGATATT..3′
3′..TGTATAGATTACCAAGGAATTTATTCTTGAAATCCTATAA..5′
sgRNA
5′ GAUGGUUCCUUAAAUAAGAACUU..3′
Guide
B
DYRK1A indel (%)
20
15
10
1.0
0.5
0
D10A
E477A
H557A
N580A
H701A
D704A
WT
SaCas9 mutants
C
5′
3′
Gln70
Asp7
His143
Asp146
T. thermophilus RuvC–substrate DNA
(PDB ID 4LD0)
D
Target DNA strand
HNH
L1
L2
His557
Non-target
DNA strand
(model)
Glu477
Asp10
His701
Asp704
RuvC
SaCas9–sgRNA–target DNA–non-target DNA
(model)

Figure S7