

# Computational Study on DNA Repair: The Roles of Electrostatic Interactions Between Uracil-DNA Glycosylase (UDG) and DNA

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## 1 Sequences of UDG (chain A) and DNA (chain B and chain C):

```
>1EMH_3|Chain A |URACIL-DNA GLYCOSYLASE | Homo sapiens (9606)
MEFFGESWKKHLSGFEFGKPYFIKLMGFVAEERKHVTVYPPPHQVFTWTQMCDIKDVKV
VILGQDPYHGPNQAHGLCFVQRPVPPPPSLENIYKELSTDIEDFVHPGHGDLGSGWAKQG
VLLNAVLTVRAHQANSHKERGWEQFTDAVVSWLNQNSNGLVFLWGSYAQKKGSAI
DRKRHHVLQTAHPSPLSVYRGFFGCRHFSKTNELLQKSGKKPIDWKEL
>1EMH_1|Chain B |DNA (5'-D(*TP*GP*TP*(P2U) *AP*TP*CP*TP*T)-3') |
TGTUATCTT
>1EMH_2|Chain C |DNA (5'-D(*AP*AP*AP*GP*AP*TP*AP*AP*CP*A)-3') |
AAAGATAACA
```

## 2 Movies

Movie1: Electrostatic potential on surfaces of DNA

Movie2: Electrostatic potential on surfaces of UDG