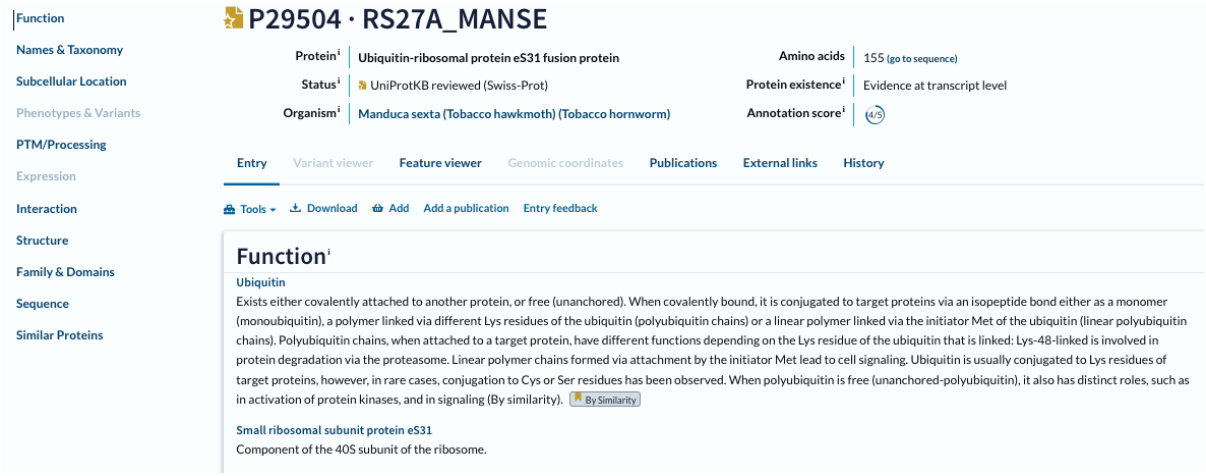
1. Poišči v UniProt-u ID ribosomalnega proteina ubikvitina pri ličinki nočnega metulja (lat. Manduca sexta) in dolžino ter molekulsko maso.

P29504,



Dolžina AK zaporedja: 155, Molekulska masa: 17847.86

ProtParam - Results

User-provided sequence:

```
        10         20         30         40         50         60
MQIFVKTLTG KTITLEVEPS DTIENVKAKI QDKEGIPPDQ QRLIFAGKQL EDGRTLSDYN

        70         80         90        100        110        120
IQKESTLHLV LRLRGGAKKR KKKNYSTPKK IKHKKKKVKL AVLRFYKVDE NGKIHRLRRE

       130        140        150
CTGEQCGAGV FMAVMEDRHY CGKCHSTMVF KDDDK
```

[Documentation / Reference]

Number of amino acids: 155

Molecular weight: 17847.86

2. Kolikšna je izoelektrična točka tega proteina in kakšen je indeks nestabilnosti. Določite število ostankov aminokisline Aspargin (N) v danem zaporedju ter izračunajte, kolikšen odstotek predstavljajo med vsemi aminokislinami v tem proteinu?
pI: 9.76

ProtParam - Results

User-provided sequence:

```
        10         20         30         40         50         60
MQIFVKTLTG KTITLEVEPS DTIENVKAKI QDKEGIPPDQ QRLIFAGKQL EDGRTLSDYN

        70         80         90        100        110        120
IQKESTLHLV LRLRGGAKKR KKKNYSTPKK IKHKKKKVKL AVLRFYKVDE NGKIHRLRRE

       130        140        150
CTGEQCGAGV FMAVMEDRHY CGKCHSTMVF KDDDK
```

[Documentation / Reference]

Number of amino acids: 155

Molecular weight: 17847.86
Theoretical pI: 9.76

Instability index: 38.76

Instability index:
The instability index (II) is computed to be 38.76
This classifies the protein as stable.

Št. asparginov v zaporedju: 4

Amino acid composition: CSV format

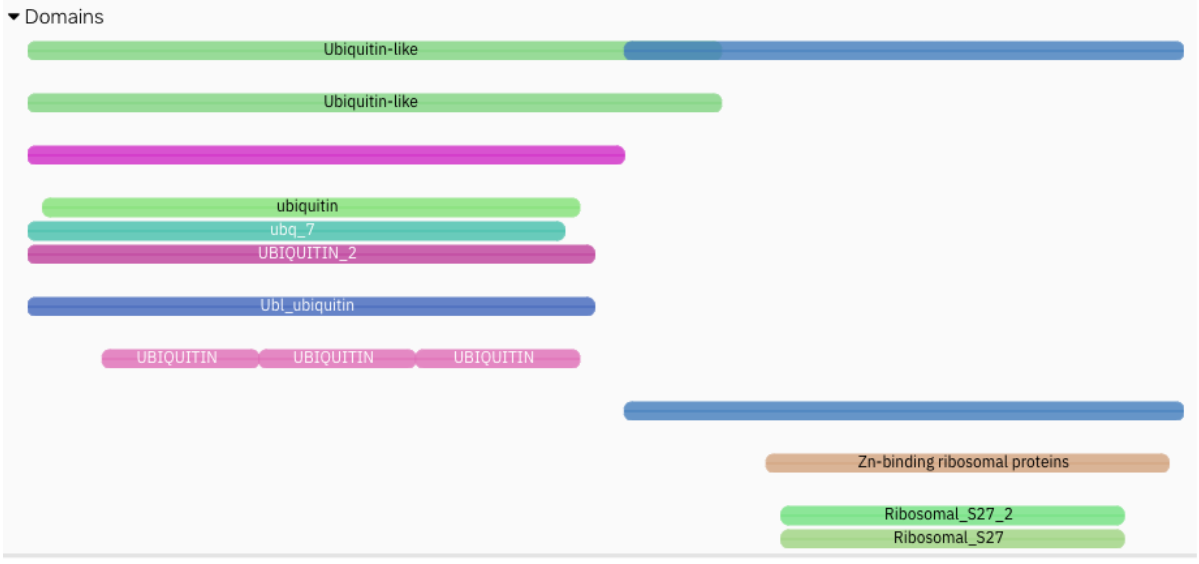
Ala (A)	6	3.9%
Arg (R)	10	6.5%
Asn (N)	4	2.6%
Asp (D)	10	6.5%
Cys (C)	4	2.6%
Gln (Q)	7	4.5%
Glu (E)	10	6.5%
Gly (G)	11	7.1%
His (H)	5	3.2%
Ile (I)	9	5.8%
Leu (L)	12	7.7%
Lys (K)	25	16.1%
Met (M)	4	2.6%
Phe (F)	5	3.2%
Pro (P)	4	2.6%
Ser (S)	5	3.2%
Thr (T)	10	6.5%
Trp (W)	0	0.0%
Tyr (Y)	4	2.6%
Val (V)	10	6.5%
Pyl (O)	0	0.0%
Sec (U)	0	0.0%

Delež aspargina v zaporedju:

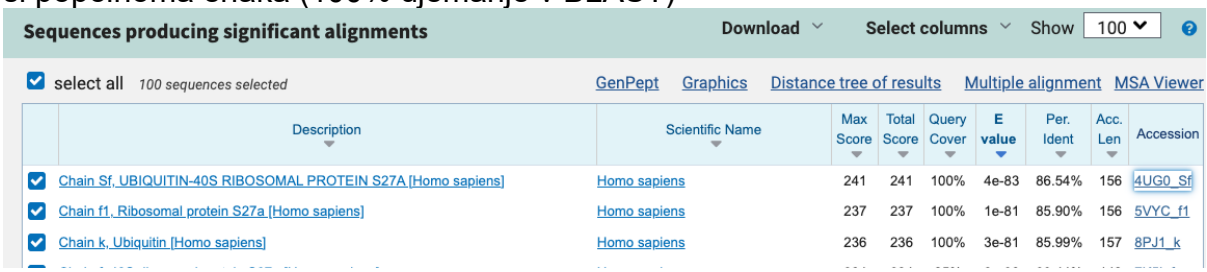
$$Delež = \left(\frac{št.(N)}{skupna\ dolžina}\right) * 100\%$$

Delež = 2,58%

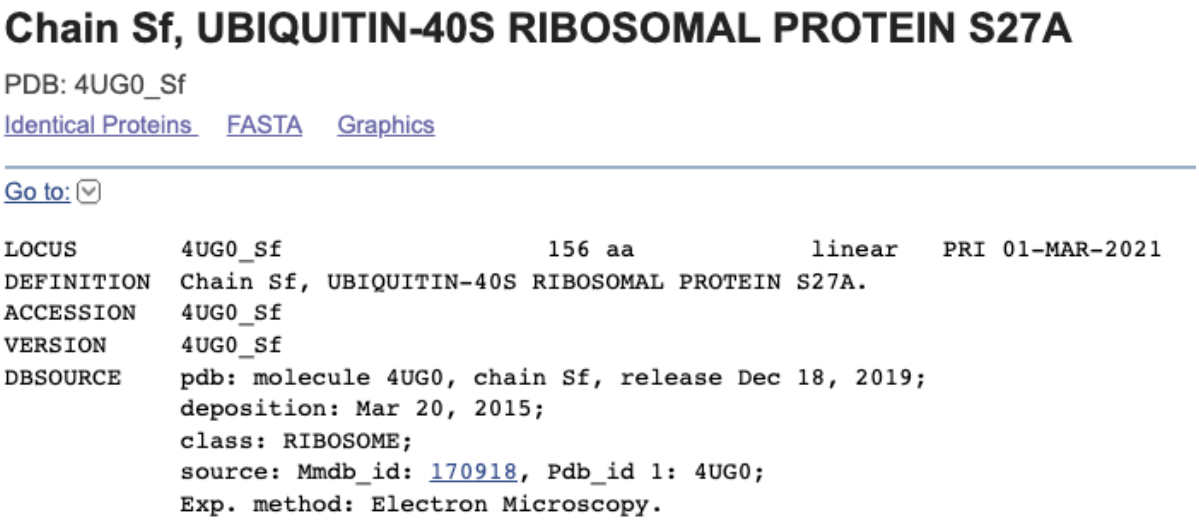
3. Ali ima ribosomalnega proteina ubikvitina kakšno znano funkcionalno domeno. Če jo/jih ima zapiši katere so?
   Protein ima Ubikvitinsko domeno, riboosomalno domeno ter za Zn ribosomska vezavna domena.



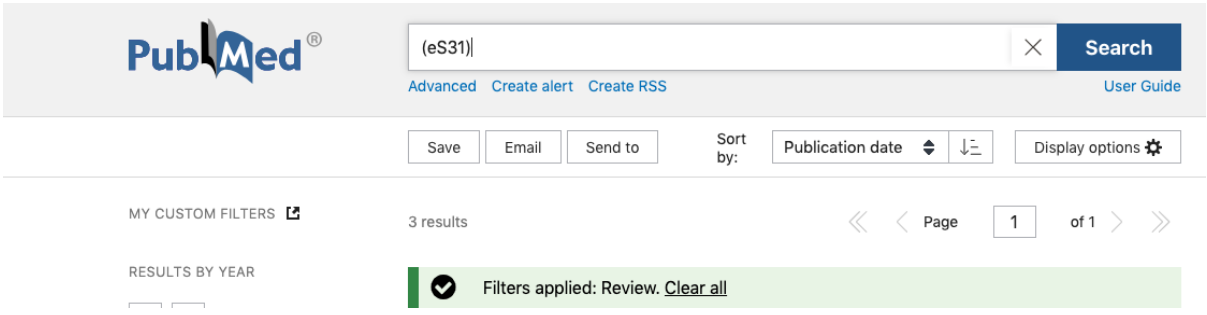
4. Ali ima človek homolog proteina eS31, ki je pri ličinki nočnega metulja izražen kot fuzijski protein z ubikvitinom, in če da, ali sta si aminokislinska zaporedja popolnoma podobna? Zapiši ID PDB tega proteina in kako je bil ta protein eksperimentalno določen?
Človeški homolog je ribosomalni protein S27A in aminokislinska zaporedja sta si popolnoma enaka (100% ujemanje v BLAST)



ID PDB: 4UG0_Sf, protein je bil eskperimentalno določen z elektronsko mikroskopijo.



5. Koliko preglednih člankov je objavleno na to temo proteina eS31 in kdaj oz. katerega leta je bil objavljen prvi članek?
3 results



Leta 2016

PubMed®

(eS31)

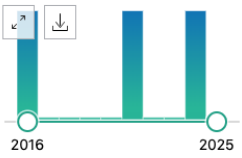
Search

Advanced Create alert Create RSS User Guide

Save Email Send to Sort by: Publication date Display options

MY CUSTOM FILTERS

RESULTS BY YEAR



3 results

Page 1 of 1

Filters applied: Review. Clear all

1

Cite

Share

Essential Oils' Chemical Characterization and Investigation of Some Biological Activities: A Critical Review.

Dhifi W, Bellili S, Jazi S, Bahloul N, Mnif W.

Medicines (Basel). 2016 Sep 22;3(4):25. doi: 10.3390/medicines3040025.

PMID: 28930135 Free PMC article. Review.