

## Rešitev za nalogo S3-02:

Rešitve nalog bodo navede v alinejah po številkah, pod katerimi so bile podane v nalogi.

1. Zaporedje vsebuje 825 aminokislinskih ostankov. Glede na to da je celotno zaporedje tudi kodirajoče zaporedje je rešitev 2475/3.
2. Gre za protein Serin/treonin-proteinsko kinazo A-Raf ter zamenjati moramo aminokislinski ostanek Asp (D) z Asn (N).

P10398:Active site

sp P10398 ARAF_HUMAN	G T G S F G T V F R G R W H G D V A V K V L K V S Q P T A E Q A Q A F K N E M Q V L R K T R H V N I L L F M G F M T R P G F A I	380
tr AA195D100 ADA195D100_9HYME	G K G T Y G T V Y K A D W Y G P V A V K R L N I E V P T E L E I E M F K N E V N V L R K I R H M H V L S F M A C I V K P Y L A I	516

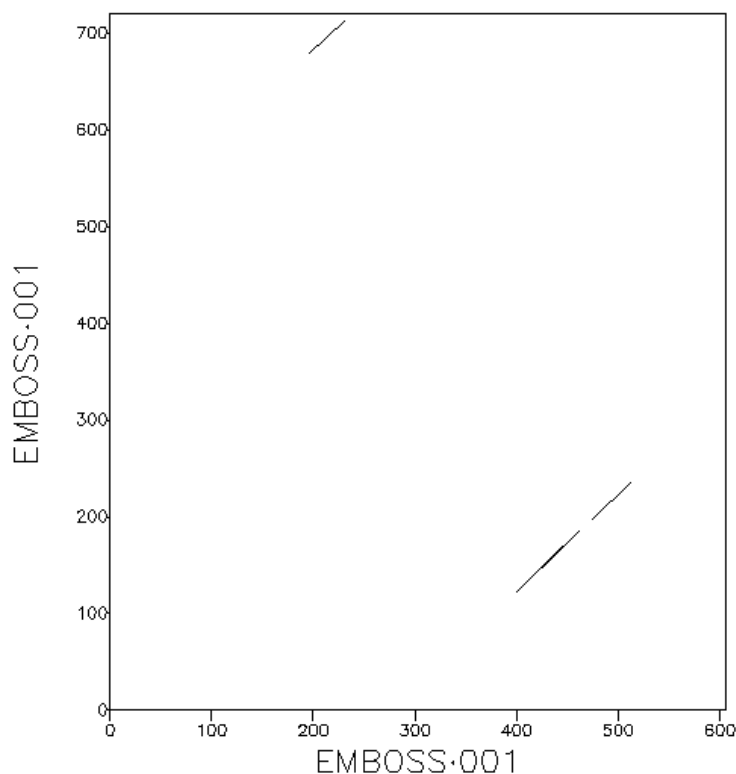
P10398:Active site

sp P10398 ARAF_HUMAN	I T Q W C E G S S L Y H H L H V A D T R F D M V Q L I D V A R Q T A G M D Y L H A K N I I H R D L K S N N I F L H E G L T V K	444
tr AA195D100 ADA195D100_9HYME	I T Q W C E G N S L Y H R L H V A E D E L E M I T I V I I L K Q I S E G M D Y L H A R N I I H R D L K S K N I F F H N G L H V K	580

P10398:Active site

3. Rastopina s človeškim ortologom mora vsebovati cinkove ione.
4. Dotmatcher:

Dotmatcher: fasta::emboss-dotmatcher-l20260515-190715-04...  
(windowsize = 30, threshold = 40.00 15/05/26)



Iz slike je razvidno, da imata proteina skupno domeno (spodnji desni kot slike). To je tudi vidno v UniProt, saj imata oba protein-kinazno domeno.

## 5. Dostopna koda: XM\_040620629

BLAST® » tblastn » results for RID-0EV8514M014 Home Recent Results Saved Strategies Help

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**i** Your search is limited to records include: **Ursus maritimus (taxid:29073)**

**Job Title** Protein Sequence

**RID** 0EV8514M014 Search expires on 05-17 02:59 am [Download All](#)

**Program** TBLASTN [Citation](#)

**Database** core\_nt [See details](#)

**Query ID** lcl|Query\_6063751

**Description** unnamed protein product

**Molecule type** amino acid

**Query Length** 297

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Type common name, binomial, taxid or group name  
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	Description	Scientific Name	Max Score	Total Score	Query Cover	E value	Per. Ident	Acc. Len	Accession
<input checked="" type="checkbox"/>	<a href="#">PREDICTED: Ursus maritimus mitogen-activated protein kinase 6 (MAPK6), transcript variant X3, mRNA</a>	<a href="#">Ursus maritimus</a>	610	610	100%	0.0	100.00%	4387	<a href="#">XM_040620630.1</a>
<input checked="" type="checkbox"/>	<a href="#">PREDICTED: Ursus maritimus mitogen-activated protein kinase 6 (MAPK6), transcript variant X2, mRNA</a>	<a href="#">Ursus maritimus</a>	610	610	100%	0.0	100.00%	4243	<a href="#">XM_008705980.2</a>
<input checked="" type="checkbox"/>	<a href="#">PREDICTED: Ursus maritimus mitogen-activated protein kinase 6 (MAPK6), transcript variant X1, mRNA</a>	<a href="#">Ursus maritimus</a>	610	610	100%	0.0	100.00%	4216	<a href="#">XM_040620629.1</a>

## 6. Rešitev je v obliki drugih datotek.