

1. Genbank

Najdi zaporedje za ta protein v genbanku (NM_033540.2)

Koliko je dolga mRNA? (3527)

Koliko so eksone? (18)

2. Napisi Uniprot kodo za ta protein! (q8iwa4)

UniProtKB (xref:pdb-5gnr) AND (organism_id:9606) Advanced | List Search

UniProtKB 1 result or restrict to reference proteome UP000005640

Tools Download (1) Add View: Cards Table Customize columns Share

Entry	Entry Name	Protein Names	Gene Names	Organism	Length
Q8IWA4	MFN1_HUMAN	Mitofusin-1[...]	MFN1	Homo sapiens (Human)	741 AA

V katerem ekspresijskem sistemu so ga izražali? (v bakterijski celici – E.Coli)

5GNR | **pdb_00005gnr**
the structure of mini-MFN1 K88A in complex with GDP
PDB DOI: <https://doi.org/10.2210/pdb5GNR/pdb>
Classification: **HYDROLASE**
Organism(s): **Homo sapiens**
Expression System: **Escherichia coli**
Mutation(s): Yes

3. Pubmed

Koliko je preglednih člankov? (23)

Mitofusin-1 Search
Advanced Create alert Create RSS
Save Email Send to Sort by: Publication date 1 of 3
23 results
Filters applied: Review. Clear all

Koliko je preglednih člankov ki vsebujejo (diabetes)? (11) Navedi tudi katerega leta je bil objavljen prvu pregledni članek ki vsebuje ime proteina in ključno besedo ssdiabetes? (2016)

Search for Mitofusin-1 diabetes

Advanced Create alert Create RSS User GL

Save Email Send to Sort by: Publication date Display options

11 results Page 1 of 2

Filters applied: Review. Clear all

☐ Mitochondrial Dynamics and Mitochondrial Dysfunction in Diabetes.

- Kako bi encim pripravil, da bi ga lahko izoliral v topni in aktivni obliki? (odstranili bi transmembranske regije)
- Kakšna bo dolžina tako pripravljenega proteina? (689)
- Kakšno izoelektrično točko ima pripravljeni protein? (5.98)

Number of amino acids: 689

Molecular weight: 78638.97

Theoretical pI: 5.98

- Pripravljen protein je stabilen pri pH = 7. Kakšen ionski izmenjevalec moramo uporabiti, da se bo med čiščenjem z ionsko izmenjevalno kromatografijo naš proein vezal nanj? (anionski)

- Katera reakcija poteka v aktivnem mestu?

Catalytic activity

Rhea 19669 [GTP + H2O = GDP + phosphate + H⁺](#) 2 Publications

[Hide Rhea reaction](#)

- Na katerih mestih se pojavljajo mutacije, ki povzročijo izgubo funkcije v mitohondrijske fuzije. Zapiši mutacijo za te določena mesta. 209 E-A, 238 R-A 239 W-

-	Mutagenesis	209	Abolishes dimerization. Loss of function in mitochondrial fusion. Abolishes GTPase activity, but has no effect on GTP binding. 1 Publication
Sequence: E → A			
-	Mutagenesis	238	Abolishes dimerization. Loss of function in mitochondrial fusion. Abolishes GTPase activity, but has no effect on GTP binding. 1 Publication
Sequence: R → A			
-	Mutagenesis	239	Abolishes GTP binding and GTPase activity. Loss of function in mitochondrial fusion. 1 Publication
Sequence: W → A			

- Na katerem mestu poteče mutacija iz izolevcina v alanina? (328)

-
Mutagenesis
328
Slightly decreases GTPase activity.
1 Publication

Sequence: I → A

15.

<div> <div> <input checked="" type="checkbox"/> select all 100 sequences selected </div> <div> GenPept Graphics Distance tree of results Multiple alignment MSA Viewer </div> </div>										
	Description	Scientific Name	Max Score	Total Score	Query Cover	E value	Per. Ident	Acc. Len	Accession	
<input checked="" type="checkbox"/>	mitofusin-1 [Homo sapiens]	Homo sapi...	1541	1541	100%	0.0	100.00%	741	NP_284941.2	
<input checked="" type="checkbox"/>	mitofusin-1 [Pan paniscus]	Pan panisc...	1533	1533	100%	0.0	99.46%	741	XP_003832011.1	
<input checked="" type="checkbox"/>	mitofusin 1 precursor [Homo sapiens]	Homo sapi...	1532	1532	100%	0.0	99.60%	741	AAK06840.1	