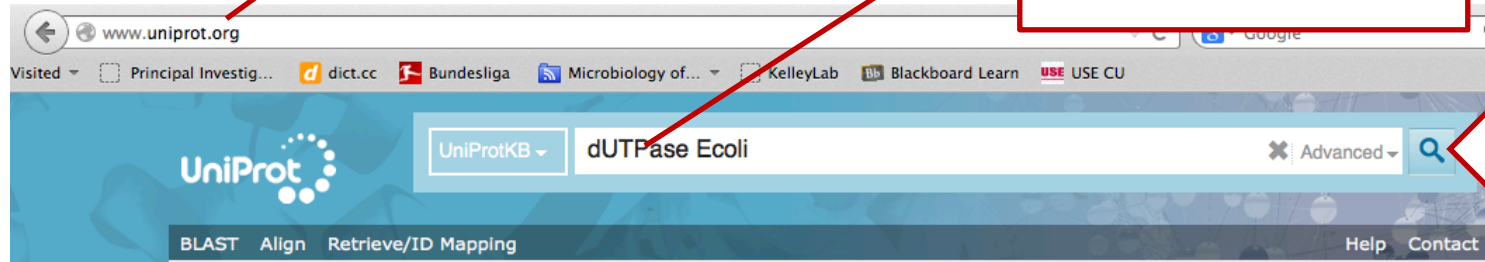


UniProt Beta Site for protein sequences

UniProt URL

Type search query

Click



Welcome to the new UniProt website! We hope you enjoy the new design. If you're not quite ready yet, you can still [go back to the old site](#).

The mission of UniProt is to provide the scientific community with a comprehensive, high-quality and freely accessible resource of protein sequence and functional information.

UniProtKB Swiss-Prot (546,238) Manually annotated and reviewed.	UniRef Sequence clusters	UniParc Sequence archive	Proteomes	News Ubiquitin caught at its own game New human variant types available on the FTP site UniProt release 2014_08 Lark or owl? PER3 is the answer Cross-references to CCDS and GeneReviews UniParc cross-references with protein and gene names FTP ... UniProt release 2014_07 News archive
TrEMBL (82,126,897) Automatically annotated and not reviewed.	Supporting data			
	Literature citations	Taxonomy	Subcellular locations	
	Cross-ref. databases	Diseases	Keywords	

Getting started



UniProt data

Protein spotlight

Text search

Our basic text search allows you to search all the resources available

Download latest release

Get the UniProt data



Two's Company

August 2014

Pairing up is sometimes

Results page

Advanced search

Protein Name

Accession Number

UniProtKB Advanced

ID Mapping Help Contact Show help for UniProtKB Basket

Columns 1 to 5 of 5 Show 25

Entry	Entry name	Protein names	Gene names	Organism	Length
<input type="checkbox"/> P06968	DUT_ECOLI	Deoxyuridine 5'-triphosphate nucleo...	dut , dnaS, sof, b3640, JW3615	Escherichia coli (strain K12)	151
<input type="checkbox"/> P0C093	SLMA_ECOLI	Nucleoid occlusion factor SlmA	slmA , ttk, yicB, b3641, JW5641	Escherichia coli (strain K12)	198
<input type="checkbox"/> P0ABQ0	COABC_ECOLI	Coenzyme A biosynthesis bifunctiona...	coaBC , dfp, b3639, JW5642	Escherichia coli (strain K12)	406
<input type="checkbox"/> P28248	DCD_ECOLI	Deoxycytidine triphosphate deaminas...	dcd , dus, paxA, b2065, JW2050	Escherichia coli (strain K12)	193
<input type="checkbox"/> P28249	ASMA_ECOLI	Protein AsmA	asmA , yegA, b2064, JW2049	Escherichia coli (strain K12)	617

1 to 5 of 5 Show 25

Detailed result page

Quick links

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UniProtKB

Advanced

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P06968 - DUT_ECOLI

SEND FEEDBACK

Protein | **Deoxyuridine 5'-triphosphate nucleotidohydrolase**

Gene | **dut**, dnaS, sof, b3640, JW3615

Organism | *Escherichia coli* (strain K12)

Status | Reviewed - - Experimental evidence at protein levelⁱ

Basket

Display Note

BLAST Align Format Add to basket History Comment (0) Feedback Help video

FUNCTION **Functionⁱ**

NAMES & TAXONOMY This enzyme is involved in nucleotide metabolism: it produces dUMP, the immediate precursor of thymidine nucleotides and it decreases the intracellular concentration of dUTP so that uracil cannot be incorporated into DNA. UniRule annotation

SUBCELL. LOCATION

PATHOL./BIOTECH

PTM / PROCESSING **Catalytic activityⁱ**

EXPRESSION dUTP + H₂O = dUMP + diphosphate. UniRule annotation

INTERACTION **Cofactorⁱ**

STRUCTURE Magnesium. 1 Publication

FAMILY & DOMAINS **Pathwayⁱ**

SEQUENCE Pyrimidine metabolism; dUMP biosynthesis; dUMP from dCTP (dUTP route): step 2/2.

CROSS-REFERENCES **Sites**

Click

Sequence Quick Link

Protein sequence in FASTA format

Display None **Sequence**¹

Sequence status¹: Complete.

P06968-1 [UniParc] [FASTA](#)

« Hide

MKKIDVKILD	PRVGKEFPLP	TYATSGSAGL	DLRACLNDV	ELAPGDTTLV	50
PTGLAIHIAD	PSLAAMMLPR	SGLGHKHGIV	LGNLVGLIDS	DYQGQLMISV	100
WNRGQDSFTI	QPGERIAQMI	FVPVVQAEFN	LVEDFDATDR	GEGGFGHSGR	150
Q					151

Length: 151
Mass (Da): 16,155
Last modified: April 1, 1988 - v1
Checksum:¹
98FA3DE0BC70FFB2

BLAST **Click**

Sequence databases

Select the link destinations:	X01714 Genomic DNA. Translation: CAA25859.1. V01578 Genomic DNA. Translation: CAA24897.1. L10328 Genomic DNA. Translation: AAA61993.1.
<input checked="" type="radio"/> EMBL	U00096 Genomic DNA. Translation: AAC76664.1.
<input type="radio"/> GenBank	AP009048 Genomic DNA. Translation: BAE77652.1.
<input type="radio"/> DDBJ	
PIR ¹	WPECDU. A30388.
RefSeq ¹	NP_418097.1. NC_000913.3. YP_491793.1. NC_007779.1.

Genome annotation databases

EnsemblBacteria ¹	AAC76664; AAC76664; b3640. BAE77652; BAE77652; BAE77652.
GeneID ¹	12934430. 948607.

Run BLASTP against this UniProtKB sequence

Alignment results

Found organisms with high alignment scores

BLAST

UniProtKB Advanced

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SEND FEEDBACK

Filter by

- Reviewed (3) Swiss-Prot
- Unreviewed (247) TrEMBL
- With 3D structure (1)
- Proteomes (24)

Organisms

- E. coli K12 (1)
- Escherichia coli str. K-12 substr. MC4100 (1)
- Escherichia coli C321.deltaA (1)
- Escherichia coli str. K-12 substr. MDS42 (1)
- Escherichia coli S17 (1)

Other organisms

Map To

Identity % 100 80 60 40 20

[Edit and resubmit](#) Order by: **Score**

Overview

Show all 250

Entry	Protein names	Identity
U6ND19	Deoxyuridine 5'-triphosphate nucleotidohydrolase (Escherichia coli str. K-12 s..)	100.0%
U5M847	Deoxyuridine 5'-triphosphate nucleotidohydrolase (Escherichia coli C321.deltaA)	100.0%
HQQ7R7	Deoxyuridine 5'-triphosphate nucleotidohydrolase (Escherichia coli	100.0%

Alignments

1 to 25 of 250 Show

Entry	Alignment overview	Info
<input type="checkbox"/> U6ND19	U6ND19_ECOLI - Deoxyuridine 5'-triphosphate nucleo... - View alignment	E-value: 9e-104 Score: 782 Ident.:

List of related protein sequences

Getting the DNA that codes for the protein

Sequenceⁱ

Sequence statusⁱ: Complete.

P06968-1 [UniParc] [FASTA](#)

« Hide

```
MKKIDVKILD PRVGKEFPLP TYATSGSAGL DLRACLNDV
ELAPGDTTLV      50
PTGLAIHIAD PSLAAMMLPR SGLGHKHGIV LGNLVGLIDS DYQGQLMISV
100
WNRGQDSFTI QPGERIAQMI FVPVVQAEFN LVEDFDATDR GEGGFHSGR
150
Q
151
```

Length: 151

Mass (Da): 16,155

Last modified: April 1, 1988 - v1

Checksum:ⁱ

98FA3DE0BC70FFB2

BLAST

GO

Sequence databases

Select the link destinations:

- EMBL
- GenBank
- DDBJ

[X01714](#) Genomic DNA. Translation: [CAA25859.1](#).
[V01578](#) Genomic DNA. Translation: [CAA24897.1](#).
[L10328](#) Genomic DNA. Translation: [AAA61993.1](#).
[U00096](#) Genomic DNA. Translation: [AAC76664.1](#).
[AP009048](#) Genomic DNA. Tran.

Select GenBank and click the accession numbers. The first one finds a GenBank record with only one gene.

This link gets you an ENTIRE genome of *E. coli*