

 MASCOT Search Results

## Protein View: gi|446651772

molecular chaperone GroEL [Escherichia coli]

**Database:** NCBInr  
**Score:** 377  
**Nominal mass ( $M_r$ ):** 57492  
**Calculated pI:** 4.85  
**Taxonomy:** Escherichia coli

Sequence similarity is available as [an NCBI BLAST search of gi|446651772 against nr](#).

## Search parameters

**MS data file:** 5-2.mgf  
**Enzyme:** Trypsin: cuts C-term side of KR unless next residue is P.  
**Fixed modifications:** Carbamidomethyl (C)  
**Variable modifications:** Oxidation (M)

## Protein sequence coverage: 17%

Matched peptides shown in **bold red**.

```

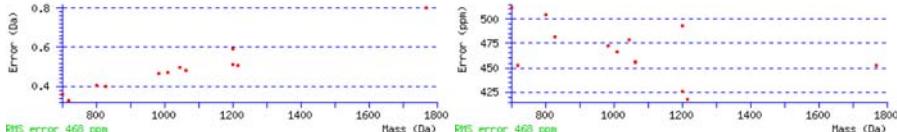
1 MAAKDVKFGN DARVVMLRGV NVLADAVKVT LGPKGRNVVL DKSGAPITIT
51 KDGVSVAREI ELEDKFENMG AQMVKEASK ANDAAGDGTT TATVLAQAI
101 TEGLKVAAG MNFMDLKRGI DKAVTAVEE LKALSVPCSD SKIAAQVGTI
151 SANSDETVGK LIAEAMDKVG KEGVITVEDG TGLQDELDVV EGMQFDRGYL
201 SPYFINKPTE GAVELESPFI LLADKKISNI REMLPVLEAV AKAGKPILLI
251 AEDVEGEALA TLVNTMNGI VKVAAVAKAG FGDRKAMLQ DIATLTGGTV
301 ISEEIGMELE KATLEDLGQA KRVVINKDTT TIIDGVGEEV AIQGRVAQIR
351 QOIEEATSDY DREKLQERVA KLAGGVAVIK VGAATEVEMK EKKARVEDAL
401 HATRAAVEEG VVAGGGVALI RVASKLADLR GQNEDQNVGI KVALRAMEAP
451 LRQIVLNCGE EPSSVANTVK GGDNNYGYNA ATEEYGNMID MGILDPTKVT
501 RSALQYAAV AGLMITTECM VTDLPLNDAA DLGAAGGMGG MMMGGMM

```

Unformatted sequence string: **548 residues** (for pasting into other applications).Sort peptides by  Residue Number  Increasing Mass  Decreasing Mass

Show predicted peptides also

Query	Start - End	Observed	$M_r$ (expt)	$M_r$ (calc)	Delta $M_r$	Score	Expect	Rank	Peptide
<b>53</b>	19 - 28	493.5200	985.0254	984.5604	0.4651	0	79	6e-005	<b>I</b> U R.GVNVLADAVK.V
<b>17</b>	52 - 58	352.3700	702.7254	702.3661	0.3594	0	22	7.5	<b>I</b> U K.DGVSVAR.E
<b>38</b>	133 - 142	532.5000	1062.9854	1062.5016	0.4839	0	13	1.9e+002	<b>I</b> U K.ALSVPCSDSK.A
<b>42</b>	232 - 242	608.5900	1215.1654	1214.6580	0.5074	0	18	67	<b>I</b> U R.EMLPVLEAV.K.A + Oxidation (M)
<b>20</b>	278 - 284	360.3400	718.6654	718.3398	0.3256	0	30	0.93	<b>I</b> U K.APFGFGDR.R
<b>37</b>	312 - 321	523.5300	1045.0454	1044.5451	0.5003	0	23	30	<b>I</b> U K.ATLEDLGQAK.R
<b>41</b>	312 - 322	401.4200	1201.2382	1200.6462	0.5919	1	17	79	<b>I</b> U K.ATLEDLGQAK.R.V
<b>24</b>	372 - 380	414.4700	826.9254	826.5276	0.3978	0	55	0.012	<b>I</b> U K.LAGGVAVIK.V
<b>35</b>	396 - 404	506.5000	1010.9854	1010.5145	0.4710	0	54	0.018	<b>I</b> U R.VEDALHATR.A
<b>11</b>	426 - 441	590.9100	1769.7082	1768.9068	0.8014	1	18	1.4e+002	<b>I</b> U K.LADLRQNEDQNVGIK.V
<b>40</b>	431 - 441	601.5500	1201.0854	1200.5735	0.5120	0	38	0.65	<b>I</b> U R.QNEDQNVGIK.V
<b>23</b>	446 - 452	402.4100	802.8054	802.4007	0.4048	0	16	1.1e+002	<b>I</b> U R.AMEAPLR.Q + Oxidation (M)



```

LOCUS WP_000729118      548 aa          linear    BCT 22-JUL-2017
DEFINITION chaperonin GroEL [Escherichia coli].
ACCESSION WP_000729118
VERSION WP_000729118.1
KEYWORDS RefSeq.
SOURCE Escherichia coli
ORGANISM Escherichia coli
Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
Enterobacteriaceae; Escherichia.
COMMENT REFSEQ: This record represents a single, non-redundant, protein
sequence which may be annotated on many different RefSeq genomes
from the same, or different, species.
COMPLETENESS: full length.
FEATURES Location/Qualifiers
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/organism="Escherichia coli"
/db_xref="taxon:562"
Protein 1..548
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/calculated_mol_wt=57226
Region 2..530
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/note="chaperonin GroEL; Reviewed; PRK00013"
/db_xref="CDD:234573"
Site order(4,8,25,36..39,41,46..47,49,59,61,69,73,76,197,229,
257,384,386,459,513,516..522)
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/note="ring oligomerisation interface [polypeptide
binding]"
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Site order(31..33,87,91,150,398,415,454,493,495)
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/note="ATP/Mg binding site [chemical binding]"
/db_xref="CDD:239460"
Site order(109,434,452,461,463..464,467)
/site_type="other"
/note="stacking interactions"
/db_xref="CDD:239460"
Site order(141,186,193,375,409..410)
/site_type="other"
/note="hinge regions"
/db_xref="CDD:239460"

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Mascot: <http://www.matrixscience.com/>