CecÃ-lia M Arraiano

List of Publications by Year in descending order

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141 papers 5,242 citations

38 h-index 65 g-index

150 all docs

150 docs citations

150 times ranked

4134 citing authors

#	Article	IF	CITATIONS
1	The role of RNA regulators, quorum sensing and câ€diâ€GMP in bacterial biofilm formation. FEBS Open Bio, 2023, 13, 975-991.	2.3	11
2	How hydrolytic exoribonucleases impact human disease: Two sides of the same story. FEBS Open Bio, 2023, 13, 957-974.	2.3	1
3	RNase R, a New Virulence Determinant of Streptococcus pneumoniae. Microorganisms, 2022, 10, 317.	3. 6	5
4	The nsp15 Nuclease as a Good Target to Combat SARS-CoV-2: Mechanism of Action and Its Inactivation with FDA-Approved Drugs. Microorganisms, 2022, 10, 342.	3.6	10
5	Phosphorylation status of BolA affects its role in transcription and biofilm development. FEBS Journal, 2021, 288, 961-979.	4.7	6
6	Ribonucleases control distinct traits of <i>Pseudomonas putida</i> lifestyle. Environmental Microbiology, 2021, 23, 174-189.	3.8	5
7	RNase R is associated in a functional complex with the RhpA DEAD-box RNA helicase in <i>Helicobacter pylori</i> . Nucleic Acids Research, 2021, 49, 5249-5264.	14.5	7
8	New targets for drug design: importance of nsp14/nsp10 complex formation for the 3'â€5' exoribonucleolytic activity on SARS oVâ€2. FEBS Journal, 2021, 288, 5130-5147.	4.7	48
9	Regulatory noncoding RNAs: functions and applications in health and disease. FEBS Journal, 2021, 288, 6308-6309.	4.7	18
10	The world of ribonucleases from pseudomonads: a short trip through the main features and singularities. Microbial Biotechnology, 2021, 14, 2316-2333.	4.2	4
11	Post-Transcriptional Control in the Regulation of Polyhydroxyalkanoates Synthesis. Life, 2021, 11, 853.	2.4	1
12	Bacterial Response to Oxidative Stress and RNA Oxidation. Frontiers in Genetics, 2021, 12, 821535.	2.3	41
13	The Two Weapons against Bacterial Biofilms: Detection and Treatment. Antibiotics, 2021, 10, 1482.	3.7	18
14	Experimental supporting data on DIS3L2 over nonsense-mediated mRNA decay targets in human cells. Data in Brief, 2020, 28, 104943.	1.0	2
15	Hfq and RNase R Mediate rRNA Processing and Degradation in a Novel RNA Quality Control Process. MBio, 2020, 11 , .	4.1	11
16	RNA-Binding Proteins Driving the Regulatory Activity of Small Non-coding RNAs in Bacteria. Frontiers in Molecular Biosciences, 2020, 7, 78.	3.5	73
17	In silico prediction and expression profile analysis of small non-coding RNAs in Herbaspirillum seropedicae SmR1. BMC Genomics, 2020, 21, 134.	2.8	2
18	<i>Pseudomonas putida</i> KT2440 is naturally endowed to withstand industrialâ€scale stress conditions. Microbial Biotechnology, 2020, 13, 1145-1161.	4.2	42

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19	Tailor-made sRNAs: a plasmid tool to control the expression of target mRNAs in Pseudomonas putida. Plasmid, 2020, 109, 102503.	1.4	17
20	Prediction of novel non-coding RNAs relevant for the growth of Pseudomonas putida in a bioreactor. Microbiology (United Kingdom), 2020, 166, 149-156.	1.8	7
21	Dis3L2 regulates cell proliferation and tissue growth through a conserved mechanism. PLoS Genetics, 2020, 16, e1009297.	3.5	12
22	The Bacterial Counterparts of the Eukaryotic Exosome: An Evolutionary Perspective. Methods in Molecular Biology, 2020, 2062, 37-46.	0.9	2
23	In Vitro Characterization of the Prokaryotic Counterparts of the Exosome Complex. Methods in Molecular Biology, 2020, 2062, 47-61.	0.9	0
24	Isolation and Analysis of Bacterial Ribosomes Through Sucrose Gradient Ultracentrifugation. Methods in Molecular Biology, 2020, 2106, 299-310.	0.9	4
25	RNA Structure Analysis by Chemical Probing with DMS and CMCT. Methods in Molecular Biology, 2020, 2106, 209-223.	0.9	0
26	The Implication of mRNA Degradation Disorders on Human DISease: Focus on DIS3 and DIS3-Like Enzymes. Advances in Experimental Medicine and Biology, 2019, 1157, 85-98.	1.6	12
27	NMR-Metabolomics Shows That BolA Is an Important Modulator of Salmonella Typhimurium Metabolic Processes under Virulence Conditions. Metabolites, 2019, 9, 243.	2.9	2
28	A precision RNA degradation machinery shapes stem cell development. Journal of Cell Biology, 2019, 218, 2437-2438.	5.2	1
29	A role for DIS3L2 over natural nonsense-mediated mRNA decay targets in human cells. Biochemical and Biophysical Research Communications, 2019, 518, 664-671.	2.1	11
30	SraL sRNA interaction regulates the terminator by preventing premature transcription termination of <i>rho</i> mRNA. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 3042-3051.	7.1	37
31	New molecular interactions broaden the functions of the RNA chaperone Hfq. Current Genetics, 2019, 65, 1313-1319.	1.7	43
32	Defining the impact of exoribonucleases in the shift between exponential and stationary phases. Scientific Reports, 2019, 9, 16271.	3.3	4
33	Stories of the future: manipulating <scp>RNA</scp> and Intra/Interkingdom communication. Microbial Biotechnology, 2019, 12, 48-50.	4.2	0
34	Pneumococcal RNase R globally impacts protein synthesis by regulating the amount of actively translating ribosomes. RNA Biology, 2019, 16, 211-219.	3.1	11
35	The acetate uptake transporter family motif "NPAPLGL(M/S)―is essential for substrate uptake. Fungal Genetics and Biology, 2019, 122, 1-10.	2.1	17
36	Identification of temperatureâ€sensitive mutations and characterization of thermolabile RN ase II variants. FEBS Letters, 2019, 593, 352-360.	2.8	2

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37	Reprogramming bacteria with RNA regulators. Biochemical Society Transactions, 2019, 47, 1279-1289.	3.4	8
38	The <scp>RNA</scp> â€binding protein Hfq is important for ribosome biogenesis and affects translation fidelity. EMBO Journal, 2018, 37, .	7.8	73
39	Stress Response Protein BolA Influences Fitness and Promotes Salmonella enterica Serovar Typhimurium Virulence. Applied and Environmental Microbiology, 2018, 84, .	3.1	20
40	Biochemical characterization of Campylobacter jejuni PNPase, an exoribonuclease important for bacterial pathogenicity. Biochimie, 2018, 147, 70-79.	2.6	6
41	PNPase is involved in the coordination of mRNA degradation and expression in stationary phase cells of Escherichia coli. BMC Genomics, 2018, 19, 848.	2.8	16
42	Characterizing the Role of Exoribonucleases in the Control of Microbial Gene Expression: Differential RNA-Seq. Methods in Enzymology, 2018, 612, 1-24.	1.0	3
43	Sinorhizobium meliloti RNase III: Catalytic Features and Impact on Symbiosis. Frontiers in Genetics, 2018, 9, 350.	2.3	9
44	Major 3′‰5′ Exoribonucleases in the Metabolism of Coding and Non-coding RNA. Progress in Molecular Biology and Translational Science, 2018, 159, 101-155.	1.7	23
45	DIS3 isoforms vary in their endoribonuclease activity and are differentially expressed within haematological cancers. Biochemical Journal, 2018, 475, 2091-2105.	3.7	12
46	Modulating Heterologous Gene Expression with Portable mRNA-Stabilizing 5′-UTR Sequences. ACS Synthetic Biology, 2018, 7, 2177-2188.	3.8	24
47	Sinorhizobium meliloti YbeY is an endoribonuclease with unprecedented catalytic features, acting as silencing enzyme in riboregulation. Nucleic Acids Research, 2017, 45, 1371-1391.	14.5	29
48	BolA Is Required for the Accurate Regulation of c-di-GMP, a Central Player in Biofilm Formation. MBio, 2017, 8, .	4.1	38
49	<scp> <i>Burkholderia cenocepacia</i> </scp> K56â€⊋ trimeric autotransporter adhesin BcaA binds TNFR1 and contributes to induce airway inflammation. Cellular Microbiology, 2017, 19, e12677.	2.1	4
50	Investigation on the anaerobic propionate degradation by <i>Escherichia coli</i> K12. Molecular Microbiology, 2017, 103, 55-66.	2.5	20
51	The Role of Ribonucleases and sRNAs in the Virulence of Foodborne Pathogens. Frontiers in Microbiology, 2017, 8, 910.	3.5	14
52	Surprises in the 3′â€end: â€~U' can decide too!. FEBS Journal, 2015, 282, 3489-3499.	4.7	25
53	BolA Is a Transcriptional Switch That Turns Off Motility and Turns On Biofilm Development. MBio, 2015, 6, e02352-14.	4.1	85
54	The role of RNase R in trans-translation and ribosomal quality control. Biochimie, 2015, 114, 113-118.	2.6	37

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55	Next generation sequencing analysis reveals that the ribonucleases RNase II, RNase R and PNPase affect bacterial motility and biofilm formation in E. coli. BMC Genomics, 2015, 16, 72.	2.8	63
56	The 3'-5' exoribonuclease Dis3 regulates the expression of specific microRNAs in <i>Drosophila</i> wing imaginal discs. RNA Biology, 2015, 12, 728-741.	3.1	26
57	Ribonucleases, antisense RNAs and the control of bacterial plasmids. Plasmid, 2015, 78, 26-36.	1.4	18
58	The importance of proteins of the RNase II/RNB-family in pathogenic bacteria. Frontiers in Cellular and Infection Microbiology, 2014, 4, 68.	3.9	28
59	A PNPase Dependent CRISPR System in Listeria. PLoS Genetics, 2014, 10, e1004065.	3.5	76
60	The RNase R from Campylobacter jejuni Has Unique Features and Is Involved in the First Steps of Infection. Journal of Biological Chemistry, 2014, 289, 27814-27824.	3.4	20
61	Breaking through the stress barrier: the role of BolA in Gram-negative survival. World Journal of Microbiology and Biotechnology, 2014, 30, 2559-2566.	3.6	24
62	The role of RNases in the regulation of small RNAs. Current Opinion in Microbiology, 2014, 18, 105-115.	5.1	104
63	Characterization of the RNase R association with ribosomes. BMC Microbiology, 2014, 14, 34.	3.3	29
64	Editorial overview: Cell regulation: Microbial cell regulation—looking in from the outside. Current Opinion in Microbiology, 2014, 18, v-vii.	5.1	1
65	Biofilm Formation and Antibiotic Resistance in Salmonella Typhimurium Are Affected by Different Ribonucleases. Journal of Microbiology and Biotechnology, 2014, 24, 8-12.	2.1	16
66	An RpoS-dependent sRNA regulates the expression of a chaperone involved in protein folding. Rna, 2013, 19, 1253-1265.	3.5	32
67	SATP (YaaH), a succinate–acetate transporter protein in <i>Escherichia coli</i> . Biochemical Journal, 2013, 454, 585-595.	3.7	74
68	A new tool for cloning and gene expression in Streptococcus pneumoniae. Plasmid, 2013, 70, 247-253.	1.4	6
69	A BolA-like morphogene from the algaChlamydomonas reinhardtiichanges morphology and induces biofilm formation in Escherichia coli. FEMS Microbiology Letters, 2013, 339, 39-47.	1.8	11
70	Intracellular ribonucleases involved in transcript processing and decay: Precision tools for RNA. Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms, 2013, 1829, 491-513.	1.9	52
71	The <scp>RNase II</scp> / <scp>RNB</scp> family of exoribonucleases: putting the  Dis' in disease. Wiley Interdisciplinary Reviews RNA, 2013, 4, 607-615.	6.4	32
72	Rossmann-fold motifs can confer multiple functions to metabolic enzymes: RNA binding and ribonuclease activity of a UDP-glucose dehydrogenase. Biochemical and Biophysical Research Communications, 2013, 430, 218-224.	2.1	7

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73	Characterization of the biochemical properties of <i>Campylobacter jejuni</i> RNase III. Bioscience Reports, 2013, 33, .	2.4	15
74	Base Pairing Interaction between $5\hat{a}\in^2$ - and $3\hat{a}\in^2$ -UTRs Controls icaR mRNA Translation in Staphylococcus aureus. PLoS Genetics, 2013, 9, e1004001.	3.5	123
75	The Virulence of Salmonella enterica Serovar Typhimurium in the Insect Model Galleria mellonella Is Impaired by Mutations in RNase E and RNase III. Applied and Environmental Microbiology, 2013, 79, 6124-6133.	3.1	60
76	The exoribonuclease Dis3L2 defines a novel eukaryotic RNA degradation pathway. EMBO Journal, 2013, 32, 1842-1854.	7.8	173
77	The Bacterial Protein Azurin Impairs Invasion and FAK/Src Signaling in P-Cadherin-Overexpressing Breast Cancer Cell Models. PLoS ONE, 2013, 8, e69023.	2.5	30
78	Small RNA Modules Confer Different Stabilities and Interact Differently with Multiple Targets. PLoS ONE, 2013, 8, e52866.	2.5	29
79	Modulating the RNA Processing and Decay by the Exosome: Altering Rrp44/Dis3 Activity and End-Product. PLoS ONE, 2013, 8, e76504.	2.5	11
80	Two Residues in the Basic Region of the Yeast Transcription Factor Yap8 Are Crucial for Its DNA-Binding Specificity. PLoS ONE, 2013, 8, e83328.	2.5	10
81	Exoribonucleases as Modulators of Virulence in Pathogenic Bacteria. Frontiers in Cellular and Infection Microbiology, 2012, 2, 65.	3.9	8
82	The CR3 motif of Rrp44p is important for interaction with the core exosome and exosome function. Nucleic Acids Research, 2012, 40, 9298-9307.	14.5	33
83	The crucial role of PNPase in the degradation of small RNAs that are not associated with Hfq. Rna, 2012, 18, 844-855.	3.5	99
84	The only exoribonuclease present in Haloferax volcanii has an unique response to temperature changes. Biochimica Et Biophysica Acta - General Subjects, 2012, 1820, 1543-1552.	2.4	6
85	Synergies between RNA degradation and trans-translation in Streptococcus pneumoniae: cross regulation and co-transcription of RNase R and SmpB. BMC Microbiology, 2012, 12, 268.	3.3	21
86	The rnb Gene of Synechocystis PCC6803 Encodes a RNA Hydrolase Displaying RNase II and Not RNase R Enzymatic Properties. PLoS ONE, 2012, 7, e32690.	2.5	13
87	Characterization of the BolA Homolog IbaG: A New Gene Involved in Acid Resistance. Journal of Microbiology and Biotechnology, 2012, 22, 484-493.	2.1	15
88	A new target for an old regulator: H-NS represses transcription of bolA morphogene by direct binding to both promoters. Biochemical and Biophysical Research Communications, 2011, 411, 50-55.	2.1	10
89	Importance and key events of prokaryotic RNA decay: the ultimate fate of an RNA molecule. Wiley Interdisciplinary Reviews RNA, 2011, 2, 818-836.	6.4	52
90	Swapping the domains of exoribonucleases RNase II and RNase R: Conferring upon RNase II the ability to degrade ds RNA. Proteins: Structure, Function and Bioinformatics, 2011, 79, 1853-1867.	2.6	24

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91	Regulation of the small regulatory RNA MicA by ribonuclease III: a target-dependent pathway. Nucleic Acids Research, 2011, 39, 2918-2930.	14.5	77
92	Identification of a DNA-binding site for the transcription factor Haa1, required for Saccharomyces cerevisiae response to acetic acid stress. Nucleic Acids Research, 2011, 39, 6896-6907.	14.5	53
93	BolA Affects Cell Growth, and Binds to the Promoters of Penicillin-Binding Proteins 5 and 6 and Regulates Their Expression. Journal of Microbiology and Biotechnology, 2011, 21, 243-251.	2.1	27
94	BolA affects cell growth, and binds to the promoters of penicillin-binding proteins 5 and 6 and regulates their expression. Journal of Microbiology and Biotechnology, 2011, 21, 243-51.	2.1	16
95	Comparison of EMSA and SPR for the Characterization of RNA–RNase II Complexes. Protein Journal, 2010, 29, 394-397.	1.6	17
96	The critical role of RNA processing and degradation in the control of gene expression. FEMS Microbiology Reviews, 2010, 34, 883-923.	8.6	285
97	RNase II: The finer details of the <i>Modus operandi </i> of a molecular killer. RNA Biology, 2010, 7, 276-281.	3.1	24
98	The poly(A)-dependent degradation pathway of <i>rps</i> O mRNA is primarily mediated by RNase R. Rna, 2009, 15, 316-326.	3.5	38
99	Determination of Key Residues for Catalysis and RNA Cleavage Specificity. Journal of Biological Chemistry, 2009, 284, 20486-20498.	3.4	34
100	The exosome contains domains with specific endoribonuclease, exoribonuclease and cytoplasmic mRNA decay activities. Nature Structural and Molecular Biology, 2009, 16, 56-62.	8.2	263
101	BolA Inhibits Cell Elongation and Regulates MreB Expression Levels. Journal of Molecular Biology, 2009, 385, 1345-1351.	4.2	64
102	Chapter 5 The Role of 3′–5′ Exoribonucleases in RNA Degradation. Progress in Molecular Biology and Translational Science, 2009, 85, 187-229.	1.7	89
103	Biochemical Characterization of the RNase II Family of Exoribonucleases from the Human Pathogens <i>Salmonella typhimurium</i> and <i>Streptococcus pneumoniae</i> Biochemistry, 2009, 48, 11848-11857.	2.5	21
104	RNase R mutants elucidate the catalysis of structured RNA: RNA-binding domains select the RNAs targeted for degradation. Biochemical Journal, 2009, 423, 291-301.	3.7	52
105	Chapter 8 Characterizing Ribonucleases In Vitro. Methods in Enzymology, 2008, 447, 131-160.	1.0	16
106	Regulating the regulators: How ribonucleases dictate the rules in the control of small non-coding RNAs. RNA Biology, 2008, 5, 230-243.	3.1	41
107	New Insights into the Mechanism of RNA Degradation by Ribonuclease II. Journal of Biological Chemistry, 2008, 283, 13070-13076.	3.4	44
108	Preface. Methods in Enzymology, 2008, 447, xxiii-xxiv.	1.0	0

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109	PNPase is a key player in the regulation of small RNAs that control the expression of outer membrane proteins. Rna, 2008, 14, 543-551.	3. 5	69
110	Characterization of the role of ribonucleases in Salmonella small RNA decay. Nucleic Acids Research, 2007, 35, 7651-7664.	14.5	133
111	The role of the S1 domain in exoribonucleolytic activity: Substrate specificity and multimerization. Rna, 2007, 13, 317-327.	3.5	50
112	The role of endoribonucleases in the regulation of RNase R. Biochemical and Biophysical Research Communications, 2006, 343, 731-737.	2.1	27
113	Adaptation to carbon starvation: RNase III ensures normal expression levels of bolA1p mRNA and ÏfS. Biochimie, 2006, 88, 341-346.	2.6	26
114	Characterization of the Functional Domains of Escherichia coli RNase II. Journal of Molecular Biology, 2006, 360, 921-933.	4.2	68
115	Expression, purification, crystallization and preliminary diffraction data characterization of Escherichia coliribonuclease II (RNase II). Acta Crystallographica Section F: Structural Biology Communications, 2006, 62, 684-687.	0.7	10
116	Effect of the morphogenebolAon the permeability of the Escherichia coliouter membrane. FEMS Microbiology Letters, 2006, 260, 106-111.	1.8	33
117	Poly(A)â€polymerase I links transcription with mRNA degradation via σ S proteolysis. Molecular Microbiology, 2006, 60, 177-188.	2.5	24
118	RNase R affects gene expression in stationary phase: regulation of omp A. Molecular Microbiology, 2006, 60, 219-228.	2.5	73
119	Unravelling the dynamics of RNA degradation by ribonuclease II and its RNA-bound complex. Nature, 2006, 443, 110-114.	27.8	207
120	A single mutation in Escherichia coli ribonuclease II inactivates the enzyme without affecting RNA binding. FEBS Journal, 2005, 272, 363-374.	4.7	44
121	Drosophilagenetazman, an orthologue of the yeast exosome component Rrp44p/Dis3, is differentially expressed during development. Developmental Dynamics, 2005, 232, 733-737.	1.8	29
122	Effect of the increased stability of the penicillin amidase mRNA on the protein expression levels. FEBS Letters, 2005, 579, 5069-5073.	2.8	12
123	Effect of Escherichia coli Morphogene bolA on Biofilms. Applied and Environmental Microbiology, 2004, 70, 5682-5684.	3.1	68
124	Inactivation of the decay pathway initiated at an internal site by RNase E promotes poly(A)-dependent degradation of the rpsO mRNA in Escherichia coli. Molecular Microbiology, 2003, 50, 1283-1294.	2.5	25
125	Cold shock induction of RNase R and its role in the maturation of the quality control mediator SsrA/tmRNA. Molecular Microbiology, 2003, 50, 1349-1360.	2.5	141
126	Post-transcriptional control of gene expression: effectors of mRNA decay. Molecular Microbiology, 2003, 49, 267-276.	2.5	37

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127	The gene bolA regulates dacA (PBP5), dacC (PBP6) and ampC (AmpC), promoting normal morphology in Escherichia coli. Molecular Microbiology, 2002, 45, 1729-1740.	2.5	110
128	RNase II levels change according to the growth conditions: characterization of gmr, a new Escherichia coli gene involved in the modulation of RNase II. Molecular Microbiology, 2001, 39, 1550-1561.	2.5	51
129	Degradation of mRNA in bacteria: emergence of ubiquitous features. BioEssays, 2000, 22, 235-244.	2.5	160
130	RNase II removes the oligo(A) tails that destabilize the rpsO mRNA of Escherichia coli. Rna, 2000, 6, 1185-1193.	3 . 5	73
131	The stationary-phase morphogene bolA from Escherichia coli is induced by stress during early stages of growth. Molecular Microbiology, 1999, 32, 789-798.	2.5	126
132	A comparative analysis of the citrate permease P mRNA stability inLactococcus lactisbiovardiacetylactisandEscherichia coli. FEMS Microbiology Letters, 1999, 172, 115-122.	1.8	6
133	Identification and developmental expression of a 5′–3′ exoribonuclease from Drosophila melanogaster. Mechanisms of Development, 1998, 79, 51-55.	1.7	44
134	Analysis of the in vivo decay of the Escherichia coli dicistronic pyrF-orfF transcript: evidence for multiple degradation pathways 1 1Edited by M. Yaniv. Journal of Molecular Biology, 1997, 268, 261-272.	4.2	17
135	Degradation products of the cytochrome C3 mRNA are similar in Desulfovibrio vulgaris Hildenborough and Escherichia coli. Gene, 1996, 177, 223-228.	2.2	3
136	A new role for RNase II in mRNA decay: Striking differences between RNase II mutants and similarities with a strain deficient in RNase E. FEMS Microbiology Letters, 1996, 145, 315-324.	1.8	5
137	PNPase modulates RNase II expression in Escherichia coli: implications for mRNA decay and cell metabolism. Molecular Microbiology, 1996, 20, 1033-1042.	2.5	70
138	Escherichia coli RNase II: characterization of the promoters involved in the transcription of rnb. Microbiology (United Kingdom), 1996, 142, 367-375.	1.8	19
139	A new role for RNase II in mRNA decay: Striking differences between RNase II mutants and similarities with a strain deficient in RNase E. FEMS Microbiology Letters, 1996, 145, 315-324.	1.8	1
140	Precise physical mapping of the Escherichia coli rnb gene, encoding ribonuclease II. Molecular Genetics and Genomics, 1995, 248, 242-246.	2.4	12
141	Construction and characterization of an absolute deletion mutant of Escherichia coli ribonuclease II. FEMS Microbiology Letters, 1995, 127, 187-193.	1.8	1