

Robert H Silverman

List of Publications by Year in descending order

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66
papers

10,495
citations

87723

38
h-index

98622

67
g-index

72
all docs

72
docs citations

72
times ranked

10494
citing authors

#	ARTICLE	IF	CITATIONS
1	HOW CELLS RESPOND TO INTERFERONS. Annual Review of Biochemistry, 1998, 67, 227-264.	5.0	3,630
2	Activation of the interferon system by short-interfering RNAs. Nature Cell Biology, 2003, 5, 834-839.	4.6	1,354
3	Small self-RNA generated by RNase L amplifies antiviral innate immunity. Nature, 2007, 448, 816-819.	13.7	536
4	Viral Encounters with 2'5'-Oligoadenylate Synthetase and RNase L during the Interferon Antiviral Response. Journal of Virology, 2007, 81, 12720-12729.	1.5	522
5	Antagonism of the Interferon-Induced OAS-RNase L Pathway by Murine Coronavirus ns2 Protein Is Required for Virus Replication and Liver Pathology. Cell Host and Microbe, 2012, 11, 607-616.	5.1	242
6	2-5A-dependent RNase Molecules Dimerize during Activation by 2-5A. Journal of Biological Chemistry, 1995, 270, 4133-4137.	1.6	222
7	Activation of RNase L is dependent on OAS3 expression during infection with diverse human viruses. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2241-2246.	3.3	221
8	PKR and RNase L Contribute to Protection against Lethal West Nile Virus Infection by Controlling Early Viral Spread in the Periphery and Replication in Neurons. Journal of Virology, 2006, 80, 7009-7019.	1.5	220
9	Targeted therapy of human malignant glioma in a mouse model by 2-5A antisense directed against telomerase RNA. Oncogene, 1998, 16, 3323-3330.	2.6	194
10	Early endonuclease-mediated evasion of RNA sensing ensures efficient coronavirus replication. PLoS Pathogens, 2017, 13, e1006195.	2.1	184
11	The role of 2'5'-oligoadenylate-activated ribonuclease L in apoptosis. Cell Death and Differentiation, 1998, 5, 313-320.	5.0	173
12	SARS-CoV-2 induces double-stranded RNA-mediated innate immune responses in respiratory epithelial-derived cells and cardiomyocytes. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	159
13	Implications for RNase L in Prostate Cancer Biology. Biochemistry, 2003, 42, 1805-1812.	1.2	147
14	Cytosolic Double-Stranded RNA Activates the NLRP3 Inflammasome via MAVS-Induced Membrane Permeabilization and K ⁺ Efflux. Journal of Immunology, 2014, 193, 4214-4222.	0.4	132
15	RNase L Plays a Role in the Antiviral Response to West Nile Virus. Journal of Virology, 2006, 80, 2987-2999.	1.5	129
16	RNase L Activates the NLRP3 Inflammasome during Viral Infections. Cell Host and Microbe, 2015, 17, 466-477.	5.1	128
17	An Apoptotic Signaling Pathway in the Interferon Antiviral Response Mediated by RNase L and c-Jun NH2-terminal Kinase. Journal of Biological Chemistry, 2004, 279, 1123-1131.	1.6	127
18	Middle East Respiratory Syndrome Coronavirus NS4b Protein Inhibits Host RNase L Activation. MBio, 2016, 7, e00258.	1.8	125

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19	Dimeric Structure of Pseudokinase RNase L Bound to 2-5A Reveals a Basis for Interferon-Induced Antiviral Activity. <i>Molecular Cell</i> , 2014, 53, 221-234.	4.5	123
20	Ribonuclease L mediates the cell-lethal phenotype of double-stranded RNA editing enzyme ADAR1 deficiency in a human cell line. <i>ELife</i> , 2017, 6, .	2.8	121
21	Homologous 2'-5'-phosphodiesterases from disparate RNA viruses antagonize antiviral innate immunity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 13114-13119.	3.3	118
22	A Bipartite Model of 2-5A-dependent RNase L. <i>Journal of Biological Chemistry</i> , 1997, 272, 22236-22242.	1.6	106
23	Small-molecule activators of RNase L with broad-spectrum antiviral activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 9585-9590.	3.3	100
24	A scientific journey through the 2-5A/RNase L system. <i>Cytokine and Growth Factor Reviews</i> , 2007, 18, 381-388.	3.2	96
25	Basis for regulated RNA cleavage by functional analysis of RNase L and Ire1p. <i>Rna</i> , 2001, 7, 361-373.	1.6	94
26	Caspase-Dependent Apoptosis by 2'-5'-Oligoadenylate Activation of RNase L Is Enhanced by IFN- γ . <i>Journal of Interferon and Cytokine Research</i> , 2000, 20, 1091-1100.	0.5	79
27	Inhibition of RNase L and RNA-dependent Protein Kinase (PKR) by Sunitinib Impairs Antiviral Innate Immunity. <i>Journal of Biological Chemistry</i> , 2011, 286, 26319-26326.	1.6	67
28	Viral Phosphodiesterases That Antagonize Double-Stranded RNA Signaling to RNase L by Degrading 2-5A. <i>Journal of Interferon and Cytokine Research</i> , 2014, 34, 455-463.	0.5	64
29	The human retrovirus XMRV in prostate cancer and chronic fatigue syndrome. <i>Nature Reviews Urology</i> , 2010, 7, 392-402.	1.9	62
30	Effect of Deficiency of the Double-Stranded RNA-Dependent Protein Kinase, PKR, on Antiviral Resistance in the Presence or Absence of Ribonuclease L: HSV-1 Replication Is Particularly Sensitive to Deficiency of the Major IFN-Mediated Enzymes. <i>Journal of Interferon and Cytokine Research</i> , 2000, 20, 653-659.	0.5	61
31	OAS-RNase L innate immune pathway mediates the cytotoxicity of a DNA-demethylating drug. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 5071-5076.	3.3	58
32	Suppression of ovarian carcinoma cell growth in vivo by the interferon-inducible plasma membrane protein, phospholipid scramblase 1. <i>Cancer Research</i> , 2002, 62, 397-402.	0.4	53
33	Cell-Type-Specific Activation of the Oligoadenylate Synthetase-RNase L Pathway by a Murine Coronavirus. <i>Journal of Virology</i> , 2013, 87, 8408-8418.	1.5	52
34	A viral RNA competitively inhibits the antiviral endoribonuclease domain of RNase L. <i>Rna</i> , 2008, 14, 1026-1036.	1.6	50
35	RNase L Targets Distinct Sites in Influenza A Virus RNAs. <i>Journal of Virology</i> , 2015, 89, 2764-2776.	1.5	49
36	Selection and cloning of poly(rC)-binding protein 2 and Raf kinase inhibitor protein RNA activators of 2'-5'-oligoadenylate synthetase from prostate cancer cells. <i>Nucleic Acids Research</i> , 2006, 34, 6684-6695.	6.5	48

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37	Ribonuclease L and metal-ion-independent endoribonuclease cleavage sites in host and viral RNAs. <i>Nucleic Acids Research</i> , 2014, 42, 5202-5216.	6.5	46
38	Cell-Type-Specific Effects of RNase L on Viral Induction of Beta Interferon. <i>MBio</i> , 2014, 5, e00856-14.	1.8	45
39	Activation of RNase L by Murine Coronavirus in Myeloid Cells Is Dependent on Basal <i>Oas</i> Gene Expression and Independent of Virus-Induced Interferon. <i>Journal of Virology</i> , 2016, 90, 3160-3172.	1.5	44
40	Murine AKAP7 Has a 2,5-Phosphodiesterase Domain That Can Complement an Inactive Murine Coronavirus ns2 Gene. <i>MBio</i> , 2014, 5, e01312-14.	1.8	41
41	<i>IFNL4</i> G Allele Is Associated with an Interferon Signature in Tumors and Survival of African-American Men with Prostate Cancer. <i>Clinical Cancer Research</i> , 2018, 24, 5471-5481.	3.2	37
42	Zika Virus Production Is Resistant to RNase L Antiviral Activity. <i>Journal of Virology</i> , 2019, 93, .	1.5	34
43	RNase L is a negative regulator of cell migration. <i>Oncotarget</i> , 2015, 6, 44360-44372.	0.8	32
44	Lineage A Betacoronavirus NS2 Proteins and the Homologous Torovirus Berne pp1a Carboxy-Terminal Domain Are Phosphodiesterases That Antagonize Activation of RNase L. <i>Journal of Virology</i> , 2017, 91, .	1.5	30
45	Translational control perks up. <i>Nature</i> , 1999, 397, 209-211.	13.7	28
46	Antisense cancer therapy: The state of the science. <i>Current Oncology Reports</i> , 2000, 2, 23-30.	1.8	27
47	A novel mechanism of RNase L inhibition: Theiler's virus L* protein prevents 2-5A from binding to RNase L. <i>PLoS Pathogens</i> , 2018, 14, e1006989.	2.1	27
48	Reverse Genetics Reveals a Role of Rotavirus VP3 Phosphodiesterase Activity in Inhibiting RNase L Signaling and Contributing to Intestinal Viral Replication <i>In Vivo</i> . <i>Journal of Virology</i> , 2020, 94, .	1.5	24
49	Skin Allograft Rejection Is Suppressed in Mice Lacking the Antiviral Enzyme, 2,5-Oligoadenylate-Dependent RNase L. <i>Viral Immunology</i> , 2002, 15, 77-83.	0.6	22
50	Suppressing PARylation by 2,5-oligoadenylate synthetase 1 inhibits DNA damage-induced cell death. <i>EMBO Journal</i> , 2020, 39, e101573.	3.5	22
51	H3K9 methylation drives resistance to androgen receptor antagonist therapy in prostate cancer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2114324119.	3.3	21
52	Activation of RNase L in Egyptian Rousette Bat-Derived RoNi/7 Cells Is Dependent Primarily on OAS3 and Independent of MAVS Signaling. <i>MBio</i> , 2019, 10, .	1.8	17
53	A phenolic small molecule inhibitor of RNase L prevents cell death from ADAR1 deficiency. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 24802-24812.	3.3	17
54	Specificity and Mechanism of Coronavirus, Rotavirus, and Mammalian Two-Histidine Phosphoesterases That Antagonize Antiviral Innate Immunity. <i>MBio</i> , 2021, 12, e0178121.	1.8	17

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55	Analysis and origins of the human and mouse RNase L genes: mediators of interferon action. <i>Mammalian Genome</i> , 2000, 11, 989-992.	1.0	15
56	RNase L activity does not contribute to host RNA degradation induced by herpes simplex virus infection. <i>Journal of General Virology</i> , 2003, 84, 925-928.	1.3	9
57	2'5'-Oligoadenylate Antisense Chimeras for Targeted Ablation of RNA. <i>ACS Symposium Series</i> , 1994, , 118-132.	0.5	6
58	Zika virus employs the host antiviral RNase L protein to support replication factory assembly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	6
59	Crystal structure of the mouse hepatitis virus ns2 phosphodiesterase domain that antagonizes RNase L activation. <i>Journal of General Virology</i> , 2016, 97, 880-886.	1.3	6
60	Caps Off to Poxviruses. <i>Cell Host and Microbe</i> , 2015, 17, 287-289.	5.1	5
61	2-Bromoadenosine-Substituted 2'5'-Oligoadenylates Modulate Binding and Activation Abilities of Human Recombinant RNase L. <i>Nucleosides & Nucleotides</i> , 1998, 17, 2323-2333.	0.5	4
62	Identification of Small Molecule Inhibitors of RNase L by Fragment-Based Drug Discovery. <i>Journal of Medicinal Chemistry</i> , 2022, 65, 1445-1457.	2.9	4
63	Expression of Mammalian Antiviral Enzymes from the 2'5' System in Transgenic Plants. <i>Journal of Plant Biochemistry and Biotechnology</i> , 1996, 5, 69-74.	0.9	3
64	Inhibition of Respiratory Syncytial Virus by Double Termini-Protected 2'5' Antisense Chimeras. <i>Nucleosides & Nucleotides</i> , 1997, 16, 1735-1738.	0.5	2
65	Transcriptional control of the human plasma membranephospholipid scramblase 1 gene is mediated by interferon- β . <i>Blood</i> , 2000, 95, 2593-2599.	0.6	2
66	Role of Oligoadenylate Synthetases in Myeloid Neoplasia. <i>Blood</i> , 2020, 136, 29-30.	0.6	0