Robert H Silverman

List of Publications by Year
in descending order

66 papers	10,495 citations	87888 38 h-index	98798 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.	11.1	3,630
2	Activation of the interferon system by short-interfering RNAs. Nature Cell Biology, 2003, 5, 834-839.	10.3	1,354
3	Small self-RNA generated by RNase L amplifies antiviral innate immunity. Nature, 2007, 448, 816-819.	27.8	536
4	Viral Encounters with 2â€²,5â€²-Oligoadenylate Synthetase and RNase L during the Interferon Antiviral Response. Journal of Virology, 2007, 81, 12720-12729.	3.4	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.	11.0	242
6	2-5A-dependent RNase Molecules Dimerize during Activation by 2-5A. Journal of Biological Chemistry, 1995, 270, 4133-4137.	3.4	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.	7.1	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.	3.4	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.	5.9	194
10	Early endonuclease-mediated evasion of RNA sensing ensures efficient coronavirus replication. PLoS Pathogens, 2017, 13, e1006195.	4.7	184
11	The role of 2â€²-5â€² oligoadenylate-activated ribonucleaseâ€‰L in apoptosis. Cell Death and Differentiation, 1998, 5, 313-320.	11.2	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, .	7.1	159
13	Implications for RNase L in Prostate Cancer Biology. Biochemistry, 2003, 42, 1805-1812.	2.5	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.	0.8	132
15	RNase L Plays a Role in the Antiviral Response to West Nile Virus. Journal of Virology, 2006, 80, 2987-2999.	3.4	129
16	RNase L Activates the NLRP3 Inflammasome during Viral Infections. Cell Host and Microbe, 2015, 17, 466-477.	11.0	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.	3.4	127
18	Middle East Respiratory Syndrome Coronavirus NS4b Protein Inhibits Host RNase L Activation. MBio, 2016, 7, e00258.	4.1	125

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19	Dimeric Structure of Pseudokinase RNase L Bound to 2-5A Reveals a Basis for Interferon-Induced Antiviral Activity. Molecular Cell, 2014, 53, 221-234.	9.7	123
20	Ribonuclease L mediates the cell-lethal phenotype of double-stranded RNA editing enzyme ADAR1 deficiency in a human cell line. ELife, 2017, 6, .	6.0	121
21	Homologous 2â€²,5â€²-phosphodiesterases from disparate RNA viruses antagonize antiviral innate immunity. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13114-13119.	7.1	118
22	A Bipartite Model of 2-5A-dependent RNase L. Journal of Biological Chemistry, 1997, 272, 22236-22242.	3.4	106
23	Small-molecule activators of RNase L with broad-spectrum antiviral activity. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 9585-9590.	7.1	100
24	A scientific journey through the 2-5A/RNase L system. Cytokine and Growth Factor Reviews, 2007, 18, 381-388.	7.2	96
25	Basis for regulated RNA cleavage by functional analysis of RNase L and Ire1p. Rna, 2001, 7, 361-373.	3.5	94
26	Caspase-Dependent Apoptosis by 2â€²,5â€²-Oligoadenylate Activation of RNase L Is Enhanced by IFN-Î². Journal of Interferon and Cytokine Research, 2000, 20, 1091-1100.	1.2	79
27	Inhibition of RNase L and RNA-dependent Protein Kinase (PKR) by Sunitinib Impairs Antiviral Innate Immunity. Journal of Biological Chemistry, 2011, 286, 26319-26326.	3.4	67
28	Viral Phosphodiesterases That Antagonize Double-Stranded RNA Signaling to RNase L by Degrading 2-5A. Journal of Interferon and Cytokine Research, 2014, 34, 455-463.	1.2	64
29	The human retrovirus XMRV in prostate cancer and chronic fatigue syndrome. Nature Reviews Urology, 2010, 7, 392-402.	3.8	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. Journal of Interferon and Cytokine Research, 2000, 20, 653-659.	1.2	61
31	OAS-RNase L innate immune pathway mediates the cytotoxicity of a DNA-demethylating drug. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5071-5076.	7.1	58
32	Suppression of ovarian carcinoma cell growth in vivo by the interferon-inducible plasma membrane protein, phospholipid scramblase 1. Cancer Research, 2002, 62, 397-402.	0.9	53
33	Cell-Type-Specific Activation of the Oligoadenylate Synthetaseâ€“RNase L Pathway by a Murine Coronavirus. Journal of Virology, 2013, 87, 8408-8418.	3.4	52
34	A viral RNA competitively inhibits the antiviral endoribonuclease domain of RNase L. Rna, 2008, 14, 1026-1036.	3.5	50
35	RNase L Targets Distinct Sites in Influenza A Virus RNAs. Journal of Virology, 2015, 89, 2764-2776.	3.4	49
36	Selection and cloning of poly(rC)-binding protein 2 and Raf kinase inhibitor protein RNA activators of 2â€²,5â€²-oligoadenylate synthetase from prostate cancer cells. Nucleic Acids Research, 2006, 34, 6684-6695.	14.5	48

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37	Ribonuclease L and metal-ionâ€“independent endoribonuclease cleavage sites in host and viral RNAs. Nucleic Acids Research, 2014, 42, 5202-5216.	14.5	46
38	Cell-Type-Specific Effects of RNase L on Viral Induction of Beta Interferon. MBio, 2014, 5, e00856-14.	4.1	45
39	Activation of RNase L by Murine Coronavirus in Myeloid Cells Is Dependent on BasalOasGene Expression and Independent of Virus-Induced Interferon. Journal of Virology, 2016, 90, 3160-3172.	3.4	44
40	Murine AKAP7 Has a 2â€²,5â€²-Phosphodiesterase Domain That Can Complement an Inactive Murine Coronavirus ns2 Gene. MBio, 2014, 5, e01312-14.	4.1	41
41	IFNL4-Î”G Allele Is Associated with an Interferon Signature in Tumors and Survival of African-American Men with Prostate Cancer. Clinical Cancer Research, 2018, 24, 5471-5481.	7.0	37
42	Zika Virus Production Is Resistant to RNase L Antiviral Activity. Journal of Virology, 2019, 93, .	3.4	34
43	RNase L is a negative regulator of cell migration. Oncotarget, 2015, 6, 44360-44372.	1.8	32
44	Lineage A Betacoronavirus NS2 Proteins and the Homologous Torovirus Berne pp1a Carboxy-Terminal Domain Are Phosphodiesterases That Antagonize Activation of RNase L. Journal of Virology, 2017, 91, .	3.4	30
45	Translational control perks up. Nature, 1999, 397, 209-211.	27.8	28
46	Antisense cancer therapy: The state of the science. Current Oncology Reports, 2000, 2, 23-30.	4.0	27
47	A novel mechanism of RNase L inhibition: Theiler's virus L* protein prevents 2-5A from binding to RNase L. PLoS Pathogens, 2018, 14, e1006989.	4.7	27
48	Reverse Genetics Reveals a Role of Rotavirus VP3 Phosphodiesterase Activity in Inhibiting RNase L Signaling and Contributing to Intestinal Viral Replication In Vivo. Journal of Virology, 2020, 94, .	3.4	24
49	Skin Allograft Rejection Is Suppressed in Mice Lacking the Antiviral Enzyme, 2â€²,5â€²-Oligoadenylate-Dependent RNase L. Viral Immunology, 2002, 15, 77-83.	1.3	22
50	Suppressing <scp>PAR</scp> ylation by 2â€²,5â€²â€•oligoadenylate synthetase 1 inhibits <scp>DNA</scp> damageâ€•induced cell death. EMBO Journal, 2020, 39, e101573.	7.8	22
51	H3K9 methylation drives resistance to androgen receptorâ€“antagonist therapy in prostate cancer. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2114324119.	7.1	21
52	Activation of RNase L in Egyptian Rousette Bat-Derived RoNi/7 Cells Is Dependent Primarily on OAS3 and Independent of MAVS Signaling. MBio, 2019, 10, .	4.1	17
53	A phenolic small molecule inhibitor of RNase L prevents cell death from ADAR1 deficiency. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 24802-24812.	7.1	17
54	Specificity and Mechanism of Coronavirus, Rotavirus, and Mammalian Two-Histidine Phosphoesterases That Antagonize Antiviral Innate Immunity. MBio, 2021, 12, e0178121.	4.1	17

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55	Analysis and origins of the human and mouse RNase L genes: mediators of interferon action. Mammalian Genome, 2000, 11, 989-992.	2.2	15
56	RNase L activity does not contribute to host RNA degradation induced by herpes simplex virus infection. Journal of General Virology, 2003, 84, 925-928.	2.9	9
57	2â€²,5â€²-Oligoadenylate Antisense Chimeras for Targeted Ablation of RNA. ACS Symposium Series, 1994, , 118-132.	0.5	6
58	Zika virus employs the host antiviral RNase L protein to support replication factory assembly. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	6
59	Crystal structure of the mouse hepatitis virus ns2 phosphodiesterase domain that antagonizes RNase L activation. Journal of General Virology, 2016, 97, 880-886.	2.9	6
60	Caps Off to Poxviruses. Cell Host and Microbe, 2015, 17, 287-289.	11.0	5
61	2-Bromoadenosine-Substituted 2â€²,5â€²-Oligoadenylates Modulate Binding and Activation Abilities of Human Recombinant RNase L. Nucleosides & Nucleotides, 1998, 17, 2323-2333.	0.5	4
62	Identification of Small Molecule Inhibitors of RNase L by Fragment-Based Drug Discovery. Journal of Medicinal Chemistry, 2022, 65, 1445-1457.	6.4	4
63	Expression of Mammalian Antiviral Enzymes from the 2â€“5A System in Transgenic Plants. Journal of Plant Biochemistry and Biotechnology, 1996, 5, 69-74.	1.7	3
64	Inhibition of Respiratory Syncytial Virus by Double Termini-Protected 2â€“5A Antisense Chimeras. Nucleosides & Nucleotides, 1997, 16, 1735-1738.	0.5	2
65	Transcriptional control of the human plasma membranephospholipid scramblase 1 gene is mediated by interferon-Î±. Blood, 2000, 95, 2593-2599.	1.4	2
66	Role of Oligoadenylate Synthetases in Myeloid Neoplasia. Blood, 2020, 136, 29-30.	1.4	0