

# Samuel H Wilson

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

441 papers	25,256 citations	86 h-index	137 g-index
475 ext. papers	26,718 ext. citations	8.7 avg, IF	6.75 L-index

#	Paper	IF	Citations
441	Requirement of mammalian DNA polymerase-beta in base-excision repair. <i>Nature</i> , <b>1996</b> , 379, 183-6	50.4	751
440	Structures of ternary complexes of rat DNA polymerase beta, a DNA template-primer, and ddCTP. <i>Science</i> , <b>1994</b> , 264, 1891-1903	33.3	737
439	Crystal structures of human DNA polymerase beta complexed with gapped and nicked DNA: evidence for an induced fit mechanism. <i>Biochemistry</i> , <b>1997</b> , 36, 11205-15	3.2	582
438	Crystal structure of rat DNA polymerase beta: evidence for a common polymerase mechanism. <i>Science</i> , <b>1994</b> , 264, 1930-5	33.3	467
437	AP endonuclease-independent DNA base excision repair in human cells. <i>Molecular Cell</i> , <b>2004</b> , 15, 209-20	17.6	374
436	OGG1 initiates age-dependent CAG trinucleotide expansion in somatic cells. <i>Nature</i> , <b>2007</b> , 447, 447-52	50.4	349
435	Markers for Gene Expression in Cultured Cells from the Nervous System. <i>Journal of Biological Chemistry</i> , <b>1972</b> , 247, 3159-3169	5.4	313
434	HTLV-I trans-activator protein, tax, is a trans-repressor of the human beta-polymerase gene. <i>Science</i> , <b>1990</b> , 247, 1082-4	33.3	304
433	Mammalian abasic site base excision repair. Identification of the reaction sequence and rate-determining steps. <i>Journal of Biological Chemistry</i> , <b>1998</b> , 273, 21203-9	5.4	291
432	The lyase activity of the DNA repair protein beta-polymerase protects from DNA-damage-induced cytotoxicity. <i>Nature</i> , <b>2000</b> , 405, 807-10	50.4	288
431	DNA polymerase beta conducts the gap-filling step in uracil-initiated base excision repair in a bovine testis nuclear extract. <i>Journal of Biological Chemistry</i> , <b>1995</b> , 270, 949-57	5.4	263
430	Crystal structures of human DNA polymerase beta complexed with DNA: implications for catalytic mechanism, processivity, and fidelity. <i>Biochemistry</i> , <b>1996</b> , 35, 12742-61	3.2	256
429	In situ analysis of repair processes for oxidative DNA damage in mammalian cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 13738-43	11.5	252
428	Structure and mechanism of DNA polymerase Beta. <i>Chemical Reviews</i> , <b>2006</b> , 106, 361-82	68.1	248
427	A role for p53 in base excision repair. <i>EMBO Journal</i> , <b>2001</b> , 20, 914-23	13	241
426	Mammalian base excision repair and DNA polymerase beta. <i>Mutation Research DNA Repair</i> , <b>1998</b> , 407, 203-15		226
425	Magnesium-induced assembly of a complete DNA polymerase catalytic complex. <i>Structure</i> , <b>2006</b> , 14, 757-66	5.2	224

424	Specific interaction of DNA polymerase beta and DNA ligase I in a multiprotein base excision repair complex from bovine testis. <i>Journal of Biological Chemistry</i> , <b>1996</b> , 271, 16000-7	5.4	212
423	The Werner syndrome protein operates in base excision repair and cooperates with DNA polymerase beta. <i>Nucleic Acids Research</i> , <b>2006</b> , 34, 745-54	20.1	205
422	Different DNA polymerases are involved in the short- and long-patch base excision repair in mammalian cells. <i>Biochemistry</i> , <b>1998</b> , 37, 3575-80	3.2	195
421	Stepwise mechanism of HIV reverse transcriptase: primer function of phosphorothioate oligodeoxynucleotide. <i>Biochemistry</i> , <b>1989</b> , 28, 1340-6	3.2	192
420	Regulation of acetylcholinesterase in neuroblastoma cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1970</b> , 67, 786-92	11.5	192
419	Biomedical research leaders: report on needs, opportunities, difficulties, education and training, and evaluation. <i>Environmental Health Perspectives</i> , <b>2000</b> , 108 Suppl 6, 979-95	8.4	189
418	Identification of 5'-deoxyribose phosphate lyase activity in human DNA polymerase gamma and its role in mitochondrial base excision repair in vitro. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1998</b> , 95, 12244-8	11.5	185
417	Role of DNA polymerase beta in the excision step of long patch mammalian base excision repair. <i>Journal of Biological Chemistry</i> , <b>1999</b> , 274, 13741-3	5.4	177
416	5'-Deoxyribose phosphate lyase activity of human DNA polymerase iota in vitro. <i>Science</i> , <b>2001</b> , 291, 2156-9	3.3	172
415	Impairment of proliferating cell nuclear antigen-dependent apurinic/aprimidinic site repair on linear DNA. <i>Journal of Biological Chemistry</i> , <b>1998</b> , 273, 898-902	5.4	170
414	XRCC1 and DNA polymerase beta in cellular protection against cytotoxic DNA single-strand breaks. <i>Cell Research</i> , <b>2008</b> , 18, 48-63	24.7	168
413	FEN1 stimulation of DNA polymerase beta mediates an excision step in mammalian long patch base excision repair. <i>Journal of Biological Chemistry</i> , <b>2000</b> , 275, 4460-6	5.4	164
412	Human DNA polymerase beta deoxyribose phosphate lyase. Substrate specificity and catalytic mechanism. <i>Journal of Biological Chemistry</i> , <b>1998</b> , 273, 15263-70	5.4	162
411	Mammalian base excision repair by DNA polymerases delta and epsilon. <i>Oncogene</i> , <b>1998</b> , 17, 835-43	9.2	160
410	A structural basis for metal ion mutagenicity and nucleotide selectivity in human DNA polymerase beta. <i>Biochemistry</i> , <b>1996</b> , 35, 12762-77	3.2	158
409	Physiology of rat-liver polysomes. The stability of messenger ribonucleic acid and ribosomes. <i>Biochemical Journal</i> , <b>1967</b> , 103, 556-66		157
408	Observing a DNA polymerase choose right from wrong. <i>Cell</i> , <b>2013</b> , 154, 157-68	56.2	151
407	Abasic translesion synthesis by DNA polymerase beta violates the "A-rule". Novel types of nucleotide incorporation by human DNA polymerase beta at an abasic lesion in different sequence contexts. <i>Journal of Biological Chemistry</i> , <b>1997</b> , 272, 2559-69	5.4	150

406	DNA polymerase beta -mediated long patch base excision repair. Poly(ADP-ribose)polymerase-1 stimulates strand displacement DNA synthesis. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 32411-4	5.4	148
405	Induction of beta-polymerase mRNA by DNA-damaging agents in Chinese hamster ovary cells. <i>Molecular and Cellular Biology</i> , <b>1989</b> , 9, 851-3	4.8	148
404	Photoaffinity labeling of mouse fibroblast enzymes by a base excision repair intermediate. Evidence for the role of poly(ADP-ribose) polymerase-1 in DNA repair. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 25541-8	5.4	147
403	Enzyme-DNA interactions required for efficient nucleotide incorporation and discrimination in human DNA polymerase beta. <i>Journal of Biological Chemistry</i> , <b>1996</b> , 271, 12141-4	5.4	146
402	The X family portrait: structural insights into biological functions of X family polymerases. <i>DNA Repair</i> , <b>2007</b> , 6, 1709-25	4.3	145
401	Evidence for an imino intermediate in the DNA polymerase beta deoxyribose phosphate excision reaction. <i>Journal of Biological Chemistry</i> , <b>1996</b> , 271, 17811-5	5.4	143
400	Base excision repair intermediates induce p53-independent cytotoxic and genotoxic responses. <i>Journal of Biological Chemistry</i> , <b>2003</b> , 278, 39951-9	5.4	140
399	Purification and domain-mapping of mammalian DNA polymerase beta. <i>Methods in Enzymology</i> , <b>1995</b> , 262, 98-107	1.7	139
398	Substrate binding by human apurinic/apyrimidinic endonuclease indicates a Briggs-Haldane mechanism. <i>Journal of Biological Chemistry</i> , <b>1997</b> , 272, 1302-7	5.4	136
397	DNA structure and aspartate 276 influence nucleotide binding to human DNA polymerase beta. Implication for the identity of the rate-limiting conformational change. <i>Journal of Biological Chemistry</i> , <b>2001</b> , 276, 3408-16	5.4	134
396	DNA polymerase lambda mediates a back-up base excision repair activity in extracts of mouse embryonic fibroblasts. <i>Journal of Biological Chemistry</i> , <b>2005</b> , 280, 18469-75	5.4	130
395	Expression of human DNA polymerase beta in Escherichia coli and characterization of the recombinant enzyme. <i>Biochemistry</i> , <b>1988</b> , 27, 901-9	3.2	126
394	Structural insights into the origins of DNA polymerase fidelity. <i>Structure</i> , <b>2003</b> , 11, 489-96	5.2	125
393	Structural design of a eukaryotic DNA repair polymerase: DNA polymerase beta. <i>Mutation Research DNA Repair</i> , <b>2000</b> , 460, 231-44		124
392	Structure of DNA polymerase beta with the mutagenic DNA lesion 8-oxodeoxyguanine reveals structural insights into its coding potential. <i>Structure</i> , <b>2003</b> , 11, 121-7	5.2	123
391	HMGB1 is a cofactor in mammalian base excision repair. <i>Molecular Cell</i> , <b>2007</b> , 27, 829-41	17.6	121
390	Functional analysis of the amino-terminal 8-kDa domain of DNA polymerase beta as revealed by site-directed mutagenesis. DNA binding and 5'-deoxyribose phosphate lyase activities. <i>Journal of Biological Chemistry</i> , <b>1998</b> , 273, 11121-6	5.4	120
389	Studies of the strand-annealing activity of mammalian hnRNP complex protein A1. <i>Biochemistry</i> , <b>1990</b> , 29, 10717-22	3.2	120

388	Apurinic/aprimidinic (AP) site recognition by the 5'-dRP/AP lyase in poly(ADP-ribose) polymerase-1 (PARP-1). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 22090-5	11.5	118
387	Suppressed catalytic activity of base excision repair enzymes on rotationally positioned uracil in nucleosomes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2003</b> , 100, 7465-70	11.5	117
386	Identification of N(G)-methylarginine residues in human heterogeneous RNP protein A1: Phe/Gly-Gly-Gly-Arg-Gly-Gly-Gly/Phe is a preferred recognition motif. <i>Biochemistry</i> , <b>1997</b> , 36, 5185-92	3.2	116
385	Protection against methylation-induced cytotoxicity by DNA polymerase beta-dependent long patch base excision repair. <i>Journal of Biological Chemistry</i> , <b>2000</b> , 275, 2211-8	5.4	116
384	DNA polymerase beta and flap endonuclease 1 enzymatic specificities sustain DNA synthesis for long patch base excision repair. <i>Journal of Biological Chemistry</i> , <b>2005</b> , 280, 3665-74	5.4	115
383	Critical role of magnesium ions in DNA polymerase beta's closing and active site assembly. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 8441-53	16.4	114
382	The fidelity of DNA polymerase beta during distributive and processive DNA synthesis. <i>Journal of Biological Chemistry</i> , <b>1999</b> , 274, 3642-50	5.4	114
381	Reduced frameshift fidelity and processivity of HIV-1 reverse transcriptase mutants containing alanine substitutions in helix H of the thumb subdomain. <i>Journal of Biological Chemistry</i> , <b>1995</b> , 270, 19516-23	5.4	111
380	Structures of DNA polymerase beta with active-site mismatches suggest a transient abasic site intermediate during misincorporation. <i>Molecular Cell</i> , <b>2008</b> , 30, 315-24	17.6	110
379	DNA polymerase beta expression differences in selected human tumors and cell lines. <i>Carcinogenesis</i> , <b>1999</b> , 20, 1049-54	4.6	109
378	Stimulation of NEIL2-mediated oxidized base excision repair via YB-1 interaction during oxidative stress. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 28474-28484	5.4	107
377	Coordination of steps in single-nucleotide base excision repair mediated by apurinic/aprimidinic endonuclease 1 and DNA polymerase beta. <i>Journal of Biological Chemistry</i> , <b>2007</b> , 282, 13532-41	5.4	107
376	Direct interaction between mammalian DNA polymerase beta and proliferating cell nuclear antigen. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 31115-23	5.4	106
375	A minor groove binding track in reverse transcriptase. <i>Nature Structural Biology</i> , <b>1997</b> , 4, 194-7		105
374	Vertebrate POLQ and POLbeta cooperate in base excision repair of oxidative DNA damage. <i>Molecular Cell</i> , <b>2006</b> , 24, 115-25	17.6	105
373	Substrate channeling in mammalian base excision repair pathways: passing the baton. <i>Journal of Biological Chemistry</i> , <b>2010</b> , 285, 40479-88	5.4	103
372	NEIL2-initiated, APE-independent repair of oxidized bases in DNA: Evidence for a repair complex in human cells. <i>DNA Repair</i> , <b>2006</b> , 5, 1439-48	4.3	103
371	Uncovering the polymerase-induced cytotoxicity of an oxidized nucleotide. <i>Nature</i> , <b>2015</b> , 517, 635-9	50.4	102

370	8-oxodGTP incorporation by DNA polymerase beta is modified by active-site residue Asn279. <i>Biochemistry</i> , <b>2000</b> , 39, 1029-33	3.2	99
369	The Werner syndrome protein stimulates DNA polymerase beta strand displacement synthesis via its helicase activity. <i>Journal of Biological Chemistry</i> , <b>2003</b> , 278, 22686-95	5.4	96
368	Efficiency of correct nucleotide insertion governs DNA polymerase fidelity. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 47393-8	5.4	95
367	Steady-state kinetics of mouse DNA polymerase beta. <i>Biochemistry</i> , <b>1979</b> , 18, 3401-6	3.2	95
366	Modifying the beta,gamma leaving-group bridging oxygen alters nucleotide incorporation efficiency, fidelity, and the catalytic mechanism of DNA polymerase beta. <i>Biochemistry</i> , <b>2007</b> , 46, 461-71	3.2	94
365	Human base excision repair enzymes apurinic/apyrimidinic endonuclease1 (APE1), DNA polymerase beta and poly(ADP-ribose) polymerase 1: interplay between strand-displacement DNA synthesis and proofreading exonuclease activity. <i>Nucleic Acids Research</i> , <b>2005</b> , 33, 1222-9	20.1	94
364	DNA polymerase lambda protects mouse fibroblasts against oxidative DNA damage and is recruited to sites of DNA damage/repair. <i>Journal of Biological Chemistry</i> , <b>2005</b> , 280, 31641-7	5.4	94
363	Structure and mechanism of DNA polymerase $\beta$ <i>Biochemistry</i> , <b>2014</b> , 53, 2768-80	3.2	93
362	Personalized exposure assessment: promising approaches for human environmental health research. <i>Environmental Health Perspectives</i> , <b>2005</b> , 113, 840-8	8.4	92
361	Identification and properties of the catalytic domain of mammalian DNA polymerase beta. <i>Biochemistry</i> , <b>1990</b> , 29, 7156-9	3.2	92
360	Increased postischemic brain injury in mice deficient in uracil-DNA glycosylase. <i>Journal of Clinical Investigation</i> , <b>2004</b> , 113, 1711-1721	15.9	91
359	Coordination between polymerase beta and FEN1 can modulate CAG repeat expansion. <i>Journal of Biological Chemistry</i> , <b>2009</b> , 284, 28352-28366	5.4	90
358	HMGB1: roles in base excision repair and related function. <i>Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms</i> , <b>2010</b> , 1799, 119-30	6	88
357	Capturing snapshots of APE1 processing DNA damage. <i>Nature Structural and Molecular Biology</i> , <b>2015</b> , 22, 924-31	17.6	86
356	Sequence of human DNA polymerase beta mRNA obtained through cDNA cloning. <i>Biochemical and Biophysical Research Communications</i> , <b>1986</b> , 136, 341-7	3.4	86
355	DNA base excision repair: a mechanism of trinucleotide repeat expansion. <i>Trends in Biochemical Sciences</i> , <b>2012</b> , 37, 162-72	10.3	85
354	Energy analysis of chemistry for correct insertion by DNA polymerase beta. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 13294-9	11.5	85
353	Interactions of the A1 heterogeneous nuclear ribonucleoprotein and its proteolytic derivative, UP1, with RNA and DNA: evidence for multiple RNA binding domains and salt-dependent binding mode transitions. <i>Biochemistry</i> , <b>1991</b> , 30, 2968-76	3.2	85



352	On the DNA polymerase III of mouse myeloma: partial purification and characterization. <i>Biochemistry</i> , <b>1975</b> , 14, 1006-20	3.2	84
351	Polymerase beta simulations suggest that Arg258 rotation is a slow step rather than large subdomain motions per se. <i>Journal of Molecular Biology</i> , <b>2002</b> , 317, 651-71	6.5	82
350	Structural insights into DNA polymerase beta fidelity: hold tight if you want it right. <i>Chemistry and Biology</i> , <b>1998</b> , 5, R7-13		81
349	Ochratoxin A-induced mutagenesis in mammalian cells is consistent with the production of oxidative stress. <i>Chemical Research in Toxicology</i> , <b>2007</b> , 20, 1031-7	4	81
348	Environmental health and genomics: visions and implications. <i>Nature Reviews Genetics</i> , <b>2000</b> , 1, 149-53	30.1	81
347	Domain specific interaction in the XRCC1-DNA polymerase beta complex. <i>Nucleic Acids Research</i> , <b>2000</b> , 28, 2049-59	20.1	81
346	Enzymes for modifying and labeling DNA and RNA. <i>Methods in Enzymology</i> , <b>1987</b> , 152, 94-110	1.7	80
345	Characterization of DNA polymerase beta mRNA: cell-cycle and growth response in cultured human cells. <i>Nucleic Acids Research</i> , <b>1988</b> , 16, 9587-96	20.1	79
344	Hypersensitivity of DNA polymerase beta null mouse fibroblasts reflects accumulation of cytotoxic repair intermediates from site-specific alkyl DNA lesions. <i>DNA Repair</i> , <b>2003</b> , 2, 27-48	4.3	78
343	Mechanism of HIV reverse transcriptase: enzyme-primer interaction as revealed through studies of a dNTP analogue, 3'-azido-dTTP. <i>Biochemistry</i> , <b>1990</b> , 29, 3603-11	3.2	78
342	Structure of rat DNA polymerase beta revealed by partial amino acid sequencing and cDNA cloning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1986</b> , 83, 5106-10	11.5	78
341	Human DNA polymerase theta possesses 5'-dRP lyase activity and functions in single-nucleotide base excision repair in vitro. <i>Nucleic Acids Research</i> , <b>2009</b> , 37, 1868-77	20.1	76
340	Up-regulation of base excision repair correlates with enhanced protection against a DNA damaging agent in mouse cell lines. <i>Nucleic Acids Research</i> , <b>1998</b> , 26, 2001-7	20.1	76
339	Strategic down-regulation of DNA polymerase beta by antisense RNA sensitizes mammalian cells to specific DNA damaging agents. <i>Nucleic Acids Research</i> , <b>1995</b> , 23, 3810-5	20.1	76
338	Magnesium-cationic dummy atom molecules enhance representation of DNA polymerase beta in molecular dynamics simulations: improved accuracy in studies of structural features and mutational effects. <i>Journal of Molecular Biology</i> , <b>2007</b> , 366, 687-701	6.5	75
337	Protein-protein interactions of HIV-1 reverse transcriptase: implication of central and C-terminal regions in subunit binding. <i>Biochemistry</i> , <b>1991</b> , 30, 11707-19	3.2	75
336	Base excision repair deficiency caused by polymerase beta haploinsufficiency: accelerated DNA damage and increased mutational response to carcinogens. <i>Cancer Research</i> , <b>2003</b> , 63, 5799-807	10.1	75
335	Identification of small molecule synthetic inhibitors of DNA polymerase beta by NMR chemical shift mapping. <i>Journal of Biological Chemistry</i> , <b>2004</b> , 279, 39736-44	5.4	74

334	DNA polymerase beta fidelity: halomethylene-modified leaving groups in pre-steady-state kinetic analysis reveal differences at the chemical transition state. <i>Biochemistry</i> , <b>2008</b> , 47, 870-9	3.2	73
333	Structural insights into DNA polymerase beta deterrents for misincorporation support an induced-fit mechanism for fidelity. <i>Structure</i> , <b>2004</b> , 12, 1823-32	5.2	73
332	AP endonuclease and poly(ADP-ribose) polymerase-1 interact with the same base excision repair intermediate. <i>DNA Repair</i> , <b>2004</b> , 3, 581-91	4.3	73
331	Yeast open reading frame YCR14C encodes a DNA beta-polymerase-like enzyme. <i>Nucleic Acids Research</i> , <b>1993</b> , 21, 5301-7	20.1	72
330	Mutations associated with base excision repair deficiency and methylation-induced genotoxic stress. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2002</b> , 99, 6860-5	11.5	71
329	A novel DNA polymerase activity found in association with intracisternal A-type particles. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1972</b> , 69, 1531-6	11.5	71
328	DNA polymerase structure-based insight on the mutagenic properties of 8-oxoguanine. <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , <b>2010</b> , 703, 18-23	3	70
327	Binary complex crystal structure of DNA polymerase $\beta$ reveals multiple conformations of the templating 8-oxoguanine lesion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 113-8	11.5	70
326	Involvement of DNA polymerase beta in protection against the cytotoxicity of oxidative DNA damage. <i>DNA Repair</i> , <b>2002</b> , 1, 317-33	4.3	69
325	Folate deficiency induces neurodegeneration and brain dysfunction in mice lacking uracil DNA glycosylase. <i>Journal of Neuroscience</i> , <b>2008</b> , 28, 7219-30	6.6	68
324	Backbone dynamics and refined solution structure of the N-terminal domain of DNA polymerase beta. Correlation with DNA binding and dRP lyase activity. <i>Journal of Molecular Biology</i> , <b>2000</b> , 296, 229-53	6.5	67
323	Influence of DNA structure on DNA polymerase beta active site function: extension of mutagenic DNA intermediates. <i>Journal of Biological Chemistry</i> , <b>2004</b> , 279, 31921-9	5.4	66
322	Mammalian DNA beta-polymerase in base excision repair of alkylation damage. <i>Progress in Molecular Biology and Translational Science</i> , <b>2001</b> , 68, 57-74		66
321	Studies on DNA alpha-polymerase of mouse myeloma: partial purification and comparison of three molecular forms of the enzyme. <i>Biochemistry</i> , <b>1976</b> , 15, 5305-14	3.2	66
320	Suicidal cross-linking of PARP-1 to AP site intermediates in cells undergoing base excision repair. <i>Nucleic Acids Research</i> , <b>2014</b> , 42, 6337-51	20.1	65
319	Regulation of DNA repair fidelity by molecular checkpoints: "gates" in DNA polymerase beta's substrate selection. <i>Biochemistry</i> , <b>2006</b> , 45, 15142-56	3.2	65
318	Eukaryotic Base Excision Repair: New Approaches Shine Light on Mechanism. <i>Annual Review of Biochemistry</i> , <b>2019</b> , 88, 137-162	29.1	64
317	Mapping of the 5'-2-deoxyribose-5-phosphate lyase active site in DNA polymerase beta by mass spectrometry. <i>Journal of Biological Chemistry</i> , <b>2000</b> , 275, 10463-71	5.4	63



316	Improved conditions for activity gel analysis of DNA polymerase catalytic polypeptides. <i>Analytical Biochemistry</i> , <b>1983</b> , 135, 318-25	3.1	63
315	Loss of DNA polymerase beta stacking interactions with templating purines, but not pyrimidines, alters catalytic efficiency and fidelity. <i>Journal of Biological Chemistry</i> , <b>2002</b> , 277, 8235-42	5.4	62
314	Physiology of rat-liver polysomes. Protein synthesis by stable polysomes. <i>Biochemical Journal</i> , <b>1967</b> , 103, 567-72		61
313	Haploinsufficiency in DNA polymerase beta increases cancer risk with age and alters mortality rate. <i>Cancer Research</i> , <b>2006</b> , 66, 7460-5	10.1	60
312	DNA polymerases beta and lambda mediate overlapping and independent roles in base excision repair in mouse embryonic fibroblasts. <i>PLoS ONE</i> , <b>2010</b> , 5, e12229	3.7	60
311	Localization of the deoxyribose phosphate lyase active site in human DNA polymerase iota by controlled proteolysis. <i>Journal of Biological Chemistry</i> , <b>2003</b> , 278, 29649-54	5.4	59
310	Mammalian heterogeneous ribonucleoprotein A1 and its constituent domains. Nucleic acid interaction, structural stability and self-association. <i>Journal of Molecular Biology</i> , <b>1993</b> , 229, 873-89	6.5	59
309	Thermodynamics of human DNA ligase I trimerization and association with DNA polymerase beta. <i>Journal of Biological Chemistry</i> , <b>1998</b> , 273, 20540-50	5.4	58
308	Structural insight into the DNA polymerase beta deoxyribose phosphate lyase mechanism. <i>DNA Repair</i> , <b>2005</b> , 4, 1347-57	4.3	57
307	"Action-at-a-distance" mutagenesis. 8-oxo-7, 8-dihydro-2'-deoxyguanosine causes base substitution errors at neighboring template sites when copied by DNA polymerase beta. <i>Journal of Biological Chemistry</i> , <b>1999</b> , 274, 15920-6	5.4	56
306	Base excision repair defects invoke hypersensitivity to PARP inhibition. <i>Molecular Cancer Research</i> , <b>2014</b> , 12, 1128-39	6.6	55
305	DNA polymerase beta substrate specificity: side chain modulation of the "A-rule". <i>Journal of Biological Chemistry</i> , <b>2009</b> , 284, 31680-9	5.4	55
304	DNA polymerase beta ribonucleotide discrimination: insertion, misinsertion, extension, and coding. <i>Journal of Biological Chemistry</i> , <b>2010</b> , 285, 24457-65	5.4	54
303	Poly(ADP-ribose) polymerase activity prevents signaling pathways for cell cycle arrest after DNA methylating agent exposure. <i>Journal of Biological Chemistry</i> , <b>2005</b> , 280, 15773-85	5.4	54
302	DNA polymerase beta and DNA synthesis in <i>Xenopus</i> oocytes and in a nuclear extract. <i>Science</i> , <b>1992</b> , 258, 475-8	33.3	54
301	Intrinsic mutagenic properties of 5-chlorocytosine: A mechanistic connection between chronic inflammation and cancer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, E4571-80	11.5	53
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