Alexander A Ishchenko

List of Publications by Year
in descending order

80 papers	2,813 citations	172457 29 h-index	182427 51 g-index
81 all docs	81 docs citations	81 times ranked	2099 citing authors

#	Article	IF	Citations
1	Dynamics and Conformational Changes in Human NEIL2 DNA Glycosylase Analyzed by Hydrogen/Deuterium Exchange Mass Spectrometry. Journal of Molecular Biology, 2022, 434, 167334.	4.2	8
2	Dataset for dynamics and conformational changes in human NEIL2 protein analyzed by integrative structural biology approach. Data in Brief, 2022, 40, 107760.	1.0	1
3	Comparative Analysis of Exo- and Endonuclease Activities of APE1-like Enzymes. International Journal of Molecular Sciences, 2022, 23, 2869.	4.1	3
4	Pre-steady-state kinetic and mutational insights into mechanisms of endo- and exonuclease DNA processing by mutant forms of human AP endonuclease. Biochimica Et Biophysica Acta - General Subjects, 2022, 1866, 130198.	2.4	1
5	The Enigma of Substrate Recognition and Catalytic Efficiency of APE1-Like Enzymes. Frontiers in Cell and Developmental Biology, 2021, 9, 617161.	3.7	6
6	Evolutionary Origins of DNA Repair Pathways: Role of Oxygen Catastrophe in the Emergence of DNA Glycosylases. Cells, 2021, 10, 1591.	4.1	6
7	Common Kinetic Mechanism of Abasic Site Recognition by Structurally Different Apurinic/Apyrimidinic Endonucleases. International Journal of Molecular Sciences, 2021, 22, 8874.	4.1	6
8	Role of PARP-catalyzed ADP-ribosylation in the Crosstalk Between DNA Strand Breaks and Epigenetic Regulation. Journal of Molecular Biology, 2020, 432, 1769-1791.	4.2	14
9	The Arabidopsis thaliana Poly(ADP-Ribose) Polymerases 1 and 2 Modify DNA by ADP-Ribosylating Terminal Phosphate Residues. Frontiers in Cell and Developmental Biology, 2020, 8, 606596.	3.7	6
10	An Assay for the Activity of Base Excision Repair Enzymes in Cellular Extracts Using Fluorescent DNA Probes. Biochemistry (Moscow), 2020, 85, 480-489.	1.5	4
11	Insight into DNA substrate specificity of PARP1-catalysed DNA poly(ADP-ribosyl)ation. Scientific Reports, 2020, 10, 3699.	3.3	32
12	Role of Base Excision Repair Pathway in the Processing of Complex DNA Damage Generated by Oxidative Stress and Anticancer Drugs. Frontiers in Cell and Developmental Biology, 2020, 8, 617884.	3.7	11
13	Chapter 11. Alternative DNA Repair Pathways to Handle Complex DNA Damage Generated by Oxidative Stress and Anticancer Drugs. Chemical Biology, 2020, , 249-278.	0.2	2
14	Mechanism of stimulation of DNA binding of the transcription factors by human apurinic/apyrimidinic endonuclease 1, APE1. DNA Repair, 2019, 82, 102698.	2.8	24
15	Characterization of DNA ADP-ribosyltransferase activities of PARP2 and PARP3: new insights into DNA ADP-ribosylation. Nucleic Acids Research, 2018, 46, 2417-2431.	14.5	94
16	The role of the N-terminal domain of human apurinic/apyrimidinic endonuclease 1, APE1, in DNA glycosylase stimulation. DNA Repair, 2018, 64, 10-25.	2.8	30
17	Dna is a New Target of Parp3. Scientific Reports, 2018, 8, 4176.	3.3	57
18	A New DNA Break Repair Pathway Involving PARP3 and Base Excision Repair Proteins. Doklady Biochemistry and Biophysics, 2018, 482, 233-237.	0.9	8

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19	Data on PAGE analysis and MD simulation for the interaction of endonuclease Apn1 from Saccharomyces cerevisiae with DNA substrates containing 5,6-dihydrouracyl and 2-aminopurine. Data in Brief, 2018, 20, 1515-1524.	1.0	0
20	Apurinic/apyrimidinic endonuclease Apn1 from Saccharomyces cerevisiae is recruited to the nucleotide incision repair pathway: Kinetic and structural features. Biochimie, 2018, 152, 53-62.	2.6	7
21	Characterization of biochemical properties of an apurinic/apyrimidinic endonuclease from Helicobacter pylori. PLoS ONE, 2018, 13, e0202232.	2.5	7
22	Pre-steady-state kinetic analysis of damage recognition by human single-strand selective monofunctional uracil-DNA glycosylase SMUG1. Molecular BioSystems, 2017, 13, 2638-2649.	2.9	26
23	Structural comparison of AP endonucleases from the exonuclease III family reveals new amino acid residues in human AP endonuclease 1 that are involved in incision of damaged DNA. Biochimie, 2016, 128-129, 20-33.	2.6	28
24	Poly(ADP-ribose) polymerases covalently modify strand break termini in DNA fragments<i>in vitro</i>. Nucleic Acids Research, 2016, 44, gkw675.	14.5	94
25	The major Arabidopsis thaliana apurinic/apyrimidinic endonuclease, ARP is involved in the plant nucleotide incision repair pathway. DNA Repair, 2016, 48, 30-42.	2.8	23
26	An interplay of the base excision repair and mismatch repair pathways in active DNA demethylation. Nucleic Acids Research, 2016, 44, 3713-3727.	14.5	54
27	TET2-mediated 5-hydroxymethylcytosine induces genetic instability and mutagenesis. DNA Repair, 2016, 43, 78-88.	2.8	21
28	Characterization of DNA substrate specificities of apurinic/apyrimidinic endonucleases from Mycobacterium tuberculosis. DNA Repair, 2015, 33, 1-16.	2.8	17
29	Conformational Dynamics of DNA Repair by Escherichia coli Endonuclease III. Journal of Biological Chemistry, 2015, 290, 14338-14349.	3.4	42
30	The role of His-83 of yeast apurinic/apyrimidinic endonuclease Apn1 in catalytic incision of abasic sites in DNA. Biochimica Et Biophysica Acta - General Subjects, 2015, 1850, 1297-1309.	2.4	3
31	Cloning and Characterization of a Wheat Homologue of Apurinic/Apyrimidinic Endonuclease Ape1L. PLoS ONE, 2014, 9, e92963.	2.5	19
32	Aberrant repair initiated by mismatch-specific thymine-DNA glycosylases provides a mechanism for the mutational bias observed in CpG islands. Nucleic Acids Research, 2014, 42, 6300-6313.	14.5	18
33	Step-by-step mechanism of DNA damage recognition by human 8-oxoguanine DNA glycosylase. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 387-395.	2.4	43
34	Pre-steady-state fluorescence analysis of damaged DNA transfer from human DNA glycosylases to AP endonuclease APE1. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 3042-3051.	2.4	30
35	Functional variants of human APE1 rescue the DNA repair defects of the yeast AP endonuclease/3â€²-diesterase-deficient strain. DNA Repair, 2014, 22, 53-66.	2.8	5
36	Excision of 8â€oxoguanine from methylated CpG dinucleotides by human 8â€oxoguanine DNA glycosylase. FEBS Letters, 2013, 587, 3129-3134.	2.8	18

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37	The mechanism of human tyrosyl-DNA phosphodiesterase 1 in the cleavage of AP site and its synthetic analogs. DNA Repair, 2013, 12, 1037-1042.	2.8	40
38	7,8-dihydro-8-oxoadenine, a highly mutagenic adduct, is repaired by Escherichia coli and human mismatch-specific uracil/thymine-DNA glycosylases. Nucleic Acids Research, 2013, 41, 912-923.	14.5	23
39	Insight into mechanisms of 3â€²-5â€² exonuclease activity and removal of bulky 8,5â€²-cyclopurine adducts by apurinic/apyrimidinic endonucleases. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E3071-80.	7.1	40
40	Uracil in duplex DNA is a substrate for the nucleotide incision repair pathway in human cells. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E3695-703.	7.1	71
41	Direct DNA Lesion Reversal and Excision Repair in <i>Escherichia coli</i>. EcoSal Plus, 2013, 5, .	5.4	6
42	Biochemical and structural characterization of the glycosylase domain of MBD4 bound to thymine and 5-hydroxymethyuracil-containing DNA. Nucleic Acids Research, 2012, 40, 9917-9926.	14.5	77
43	Functional characterization of the Caenorhabditis elegans DNA repair enzyme APN-1. DNA Repair, 2012, 11, 811-822.	2.8	17
44	Kinetic mechanism of the interaction of Saccharomyces cerevisiae AP-endonuclease 1 with DNA substrates. Biochemistry (Moscow), 2012, 77, 1162-1171.	1.5	4
45	Highly Mutagenic Exocyclic DNA Adducts Are Substrates for the Human Nucleotide Incision Repair Pathway. PLoS ONE, 2012, 7, e51776.	2.5	29
46	Initiation of 8-oxoguanine base excision repair within trinucleotide tandem repeats. Biochemistry (Moscow), 2012, 77, 270-279.	1.5	5
47	The hMsh2-hMsh6 Complex Acts in Concert with Monoubiquitinated PCNA and Pol Î· in Response to Oxidative DNA Damage in Human Cells. Molecular Cell, 2011, 43, 649-662.	9.7	134
48	Lys98 Substitution in Human AP Endonuclease 1 Affects the Kinetic Mechanism of Enzyme Action in Base Excision and Nucleotide Incision Repair Pathways. PLoS ONE, 2011, 6, e24063.	2.5	16
49	New Insights in the Removal of the Hydantoins, Oxidation Product of Pyrimidines, via the Base Excision and Nucleotide Incision Repair Pathways. PLoS ONE, 2011, 6, e21039.	2.5	35
50	Kinetic mechanism of human apurinic/apyrimidinic endonuclease action in nucleotide incision repair. Biochemistry (Moscow), 2011, 76, 273-281.	1.5	8
51	Presence of base excision repair enzymes in the wheat aleurone and their activation in cells undergoing programmed cell death. Plant Physiology and Biochemistry, 2011, 49, 1155-1164.	5.8	10
52	Coupling of the nucleotide incision and 3â€² â†’ 5â€² exonuclease activities in Escherichia coli endonuclease IV: Structural and genetic evidences. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2010, 685, 70-79.	1.0	27
53	Real-time studies of conformational dynamics of the repair enzyme E. coli formamidopyrimidine-DNA glycosylase and its DNA complexes during catalytic cycle. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2010, 685, 3-10.	1.0	39
54	Crystallization and preliminary X-ray analysis of human endonuclease 1 (APE1) in complex with an oligonucleotide containing a 5,6-dihydrouracil (DHU) or an Î±-anomeric 2â€²-deoxyadenosine (Î±dA) modified base. Acta Crystallographica Section F: Structural Biology Communications, 2010, 66, 798-800.	0.7	4

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55	Genetic and Biochemical Characterization of Human AP Endonuclease 1 Mutants Deficient in Nucleotide Incision Repair Activity. PLoS ONE, 2010, 5, e12241.	2.5	37
56	African swine fever virus AP endonuclease is a redox-sensitive enzyme that repairs alkylating and oxidative damage to DNA. Virology, 2009, 390, 102-109.	2.4	13
57	Human DNA polymerase iota protects cells against oxidative stress. EMBO Journal, 2008, 27, 2883-2895.	7.8	93
58	Endogenous DNA damage clusters in human hematopoietic stem and progenitor cells. Free Radical Biology and Medicine, 2008, 45, 1352-1359.	2.9	19
59	Substrate Specificity of Homogeneous Monkeypox Virus Uracil-DNA Glycosylase. Biochemistry, 2007, 46, 11874-11881.	2.5	14
60	Interaction of pro-and eukaryotic DNA repair enzymes with oligodeoxyribonucleotides containing clustered lesions. Molecular Biology, 2007, 41, 102-109.	1.3	2
61	Major oxidative products of cytosine are substrates for the nucleotide incision repair pathway. DNA Repair, 2007, 6, 8-18.	2.8	81
62	Nucleotide Incision Repair: An Alternative and Ubiquitous Pathway to Handle Oxidative DNA Damage. , 2007, , 54-66.		4
63	Age-associated changes in oxidative damage and the activity of antioxidant enzymes in rats with inherited overgeneration of free radicals. Journal of Cellular and Molecular Medicine, 2006, 10, 206-215.	3.6	25
64	High Resolution Characterization of Formamidopyrimidine-DNA Glycosylase Interaction with Its Substrate by Chemical Cross-linking and Mass Spectrometry Using Substrate Analogs. Journal of Biological Chemistry, 2006, 281, 32353-32365.	3.4	6
65	Uncoupling of the base excision and nucleotide incision repair pathways reveals their respective biological roles. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 2564-2569.	7.1	71
66	The 3â€²â†’5â€² Exonuclease of Apn1 Provides an Alternative Pathway To Repair 7,8-Dihydro-8-Oxodeoxyguanosine in Saccharomyces cerevisiae. Molecular and Cellular Biology, 2005, 25, 6380-6390.	2.3	70
67	Characterization of Caenorhabditis elegans Exonuclease-3 and Evidence That a Mg2+-Dependent Variant Exhibits a Distinct Mode of Action on Damaged DNA. Biochemistry, 2005, 44, 12835-12848.	2.5	24
68	Thermodynamic, kinetic and structural basis for recognition and repair of abasic sites in DNA by apurinic/apyrimidinic endonuclease from human placenta. Nucleic Acids Research, 2004, 32, 5134-5146.	14.5	35
69	The major human AP endonuclease (Ape1) is involved in the nucleotide incision repair pathway. Nucleic Acids Research, 2004, 32, 73-81.	14.5	181
70	Pre-steady-state kinetics shows differences in processing of various DNA lesions by Escherichia coli formamidopyrimidine-DNA glycosylase. Nucleic Acids Research, 2004, 32, 926-935.	14.5	57
71	Î±-Anomeric Deoxynucleotides, Anoxic Products of Ionizing Radiation, Are Substrates for the Endonuclease IV-Type AP Endonucleasesâ€. Biochemistry, 2004, 43, 15210-15216.	2.5	55
72	A molecular beacon assay for measuring base excision repair activities. Biochemical and Biophysical Research Communications, 2004, 319, 240-246.	2.1	80

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73	Enzymology of repair of etheno-adducts. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2003, 531, 219-229.	1.0	79
74	Recognition of damaged DNA by Escherichia coli Fpg protein: insights from structural and kinetic data. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2003, 531, 141-156.	1.0	36
75	Characterisation of new substrate specificities of Escherichia coli and Saccharomyces cerevisiae AP endonucleases. Nucleic Acids Research, 2003, 31, 6344-6353.	14.5	69
76	Thermodynamic, Kinetic, and Structural Basis for Recognition and Repair of 8-Oxoguanine in DNA by Fpg Protein fromEscherichiacoliâ€. Biochemistry, 2002, 41, 7540-7548.	2.5	46
77	Stopped-Flow Kinetic Studies of the Interaction between Escherichia coli Fpg Protein and DNA Substrates. Biochemistry, 2002, 41, 1520-1528.	2.5	58
78	Alternative nucleotide incision repair pathway for oxidative DNA damage. Nature, 2002, 415, 183-187.	27.8	276
79	Single-Stranded Oligodeoxyribonucleotides Are Substrates of Fpg Protein from Escherichia Coli. IUBMB Life, 1999, 48, 613-618.	3.4	14
80	Structural Requirements of Double and Single Stranded DNA Substrates and Inhibitors, Including a Photoaffinity Label, of Fpg Protein From Escherichia Coli. Journal of Biomolecular Structure and Dynamics, 1999, 17, 301-310.	3.5	15