Karl E Kadler

List of Publications by Year
in descending order

178 papers	13,812 citations	20817 60 h-index	23533 111 g-index
194 all docs	194 docs citations	194 times ranked	11817 citing authors

#	Article	IF	Citations
1	Targeted Disruption of Decorin Leads to Abnormal Collagen Fibril Morphology and Skin Fragility. Journal of Cell Biology, 1997, 136, 729-743.	5.2	1,356
2	Collagen fibril formation. Biochemical Journal, 1996, 316, 1-11.	3.7	1,190
3	Collagens at a glance. Journal of Cell Science, 2007, 120, 1955-1958.	2.0	653
4	Procollagen trafficking, processing and fibrillogenesis. Journal of Cell Science, 2005, 118, 1341-1353.	2.0	621
5	Collagen fibrillogenesis: fibronectin, integrins, and minor collagens as organizers and nucleators. Current Opinion in Cell Biology, 2008, 20, 495-501.	5.4	583
6	Assembly of collagen fibrils de novo by cleavage of the type I pC-collagen with procollagen C-proteinase. Assay of critical concentration demonstrates that collagen self-assembly is a classical example of an entropy-driven process.. Journal of Biological Chemistry, 1987, 262, 15696-15701.	3.4	276
7	Coalignment of plasma membrane channels and protrusions (fibripositors) specifies the parallelism of tendon. Journal of Cell Biology, 2004, 165, 553-563.	5.2	275
8	Identification of collagen fibril fusion during vertebrate tendon morphogenesis. The process relies on unipolar fibrils and is regulated by collagen-proteoglycan interaction. Journal of Molecular Biology, 2000, 295, 891-902.	4.2	246
9	Using transmission electron microscopy and 3View to determine collagen fibril size and three-dimensional organization. Nature Protocols, 2013, 8, 1433-1448.	12.0	225
10	Corneal collagen fibril structure in three dimensions: Structural insights into fibril assembly, mechanical properties, and tissue organization. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 7307-7312.	7.1	218
11	Transcription factor EGR1 directs tendon differentiation and promotes tendon repair. Journal of Clinical Investigation, 2013, 123, 3564-3576.	8.2	201
12	Assembly of collagen fibrils de novo by cleavage of the type I pC-collagen with procollagen C-proteinase. Assay of critical concentration demonstrates that collagen self-assembly is a classical example of an entropy-driven process. Journal of Biological Chemistry, 1987, 262, 15696-701.	3.4	194
13	Cartilage Oligomeric Matrix Protein Interacts with Type IX Collagen, and Disruptions to These Interactions Identify a Pathogenetic Mechanism in a Bone Dysplasia Family. Journal of Biological Chemistry, 2001, 276, 6046-6055.	3.4	188
14	Tendon Functional Extracellular Matrix. Journal of Orthopaedic Research, 2015, 33, 793-799.	2.3	171
15	The collagen fibrilâ€"A model system for studying the staining and fixation of a protein. Electron Microscopy Reviews, 1990, 3, 143-182.	1.3	170
16	Age-Related Changes on the Surface of Vitreous Collagen Fibrils. , 2004, 45, 1041.		153
17	The Supramolecular Organization of Fibrillin-Rich Microfibrils. Journal of Cell Biology, 2001, 152, 1045-1056.	5.2	146
18	A structure-based extracellular matrix expansion mechanism of fibrous tissue growth. ELife, 2015, 4, .	6.0	130

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19	Circadian control of the secretory pathway maintains collagen homeostasis. Nature Cell Biology, 2020, 22, 74-86.	10.3	130
20	Actin Filaments Are Required for Fibripositor-mediated Collagen Fibril Alignment in Tendon. Journal of Biological Chemistry, 2006, 281, 38592-38598.	3.4	127
21	Targeted Induction of Endoplasmic Reticulum Stress Induces Cartilage Pathology. PLoS Genetics, 2009, 5, e1000691.	3.5	127
22	Lysyl Oxidase Activity Is Required for Ordered Collagen Fibrillogenesis by Tendon Cells. Journal of Biological Chemistry, 2015, 290, 16440-16450.	3.4	125
23	Assembly of type I collagen fibrils de novo. Between 37 and 41 degrees C the process is limited by micro-unfolding of monomers.. Journal of Biological Chemistry, 1988, 263, 10517-10523.	3.4	121
24	Collagen fibrils in vitro grow from pointed tips in the C- to N-terminal direction. Biochemical Journal, 1990, 268, 339-343.	3.7	119
25	STEM/TEM studies of collagen fibril assembly. Micron, 2001, 32, 273-285.	2.2	116
26	A substitution of cysteine for glycine 748 of the alpha 1 chain produces a kink at this site in the procollagen I molecule and an altered N-proteinase cleavage site over 225 nm away.. Journal of Biological Chemistry, 1988, 263, 19249-19255.	3.4	115
27	The Cellular Biology of Flexor Tendon Adhesion Formation. American Journal of Pathology, 2009, 175, 1938-1951.	3.8	109
28	The Angiogenic Inhibitor Long Pentraxin PTX3 Forms an Asymmetric Octamer with Two Binding Sites for FGF2. Journal of Biological Chemistry, 2010, 285, 17681-17692.	3.4	106
29	Proteinases of the Bone Morphogenetic Protein-1 Family Convert Procollagen VII to Mature Anchoring Fibril Collagen. Journal of Biological Chemistry, 2002, 277, 26372-26378.	3.4	105
30	Collagen fibril biosynthesis in tendon: a review and recent insights. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2002, 133, 979-985.	1.8	105
31	Scleraxis Is Required for Cell Lineage Differentiation and Extracellular Matrix Remodeling During Murine Heart Valve Formation In Vivo. Circulation Research, 2008, 103, 948-956.	4.5	104
32	Collagen Fibril Assembly and Function. Current Topics in Developmental Biology, 2018, 130, 107-142.	2.2	102
33	Tension is required for fibripositor formation. Matrix Biology, 2008, 27, 371-375.	3.6	100
34	3â€<scp>D</scp> ultrastructure and collagen composition of healthy and overloaded human tendon: evidence of tenocyte and matrix buckling. Journal of Anatomy, 2014, 224, 548-555.	1.5	97
35	Assembly of type I collagen fibrils de novo. Between 37 and 41 degrees C the process is limited by micro-unfolding of monomers. Journal of Biological Chemistry, 1988, 263, 10517-23.	3.4	97
36	Growing tips of type I collagen fibrils formed in vitro are near-paraboloidal in shape, implying a reciprocal relationship between accretion and diameter.. Proceedings of the National Academy of Sciences of the United States of America, 1992, 89, 9855-9859.	7.1	93

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37	A substitution of cysteine for glycine 748 of the alpha 1 chain produces a kink at this site in the procollagen I molecule and an altered N-proteinase cleavage site over 225 nm away. Journal of Biological Chemistry, 1988, 263, 19249-55.	3.4	91
38	Type I procollagen: The geneâ€protein system that harbors most of the mutations causing osteogenesis imperfecta and probably more common heritable disorders of connective tissue. American Journal of Medical Genetics Part A, 1989, 34, 60-67.	2.4	90
39	Ageing Changes in the Tensile Properties of Tendons: Influence of Collagen Fibril Volume Fraction. Journal of Biomechanical Engineering, 2008, 130, 021011.	1.3	89
40	Copolymerization of pNcollagen III and collagen I. pNcollagen III decreases the rate of incorporation of collagen I into fibrils, the amount of collagen I incorporated, and the diameter of the fibrils formed. Journal of Biological Chemistry, 1991, 266, 12703-9.	3.4	87
41	Pleomorphism in type I collagen fibrils produced by persistence of the procollagen N-propeptide. Journal of Molecular Biology, 1989, 210, 337-345.	4.2	86
42	The 10+4 microfibril structure of thin cartilage fibrils. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 17249-17254.	7.1	86
43	Tendon Development Requires Regulation of Cell Condensation and Cell Shape via Cadherin-11-Mediated Cell-Cell Junctions. Molecular and Cellular Biology, 2007, 27, 6218-6228.	2.3	85
44	Expression of an engineered form of recombinant procollagen in mouse milk. Nature Biotechnology, 1999, 17, 385-389.	17.5	84
45	Paired Basic/Furin-like Proprotein Convertase Cleavage of Pro-BMP-1 in the trans-Golgi Network. Journal of Biological Chemistry, 2003, 278, 18478-18484.	3.4	84
46	Reduced cell proliferation and increased apoptosis are significant pathological mechanisms in a murine model of mild pseudoachondroplasia resulting from a mutation in the C-terminal domain of COMP. Human Molecular Genetics, 2007, 16, 2072-2088.	2.9	84
47	Mica sandwich technique for preparing macromolecules for rotary shadowing. Journal of Ultrastructure Research, 1985, 91, 66-76.	1.1	82
48	The initiation of embryonic-like collagen fibrillogenesis by adult human tendon fibroblasts when cultured under tension. Biomaterials, 2010, 31, 4889-4897.	11.4	81
49	Bimodal collagen fibril diameter distributions direct age-related variations in tendon resilience and resistance to rupture. Journal of Applied Physiology, 2012, 113, 878-888.	2.5	79
50	Evidence of structurally continuous collagen fibrils in tendons. Acta Biomaterialia, 2017, 50, 293-301.	8.3	79
51	The fibrillar collagens, collagen VIII, collagen X and the C1q complement proteins share a similar domain in their C‐terminal non‐collagenous regions. FEBS Letters, 1992, 303, 126-128.	2.8	76
52	Nonmuscle myosin II powered transport of newly formed collagen fibrils at the plasma membrane. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E4743-52.	7.1	76
53	Tip-mediated fusion involving unipolar collagen fibrils accounts for rapid fibril elongation, the occurrence of fibrillar branched networks in skin and the paucity of collagen fibril ends in vertebrates. Matrix Biology, 2000, 19, 359-365.	3.6	72
54	Matrix loading: Assembly of extracellular matrix collagen fibrils during embryogenesis. Birth Defects Research Part C: Embryo Today Reviews, 2004, 72, 1-11.	3.6	72

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55	Tendon Is Covered by a Basement Membrane Epithelium That Is Required for Cell Retention and the Prevention of Adhesion Formation. PLoS ONE, 2011, 6, e16337.	2.5	71
56	Synthesis of embryonic tendon-like tissue by human marrow stromal/mesenchymal stem cells requires a three-dimensional environment and transforming growth factor Î²3. Matrix Biology, 2010, 29, 668-677.	3.6	69
57	Fibroblast-Derived MMP-14 Regulates Collagen Homeostasis in Adult Skin. Journal of Investigative Dermatology, 2016, 136, 1575-1583.	0.7	69
58	Three-dimensional aspects of matrix assembly by cells in the developing cornea. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 687-692.	7.1	68
59	Bone Morphogenetic Protein-1 (BMP-1). Journal of Biological Chemistry, 2003, 278, 18045-18049.	3.4	67
60	Decreased chondrocyte proliferation and dysregulated apoptosis in the cartilage growth plate are key features of a murine model of epiphyseal dysplasia caused by a matn3 mutation. Human Molecular Genetics, 2007, 16, 1728-1741.	2.9	67
61	Slow stretching that mimics embryonic growth rate stimulates structural and mechanical development of tendonâ€like tissue in vitro. Developmental Dynamics, 2011, 240, 2520-2528.	1.8	65
62	A type I collagen with a substitution of a cysteine for glycine-748 in the .alpha.1(I) chain copolymerizes with normal type I collagen and can generate fractallike structures. Biochemistry, 1991, 30, 5081-5088.	2.5	62
63	Simple physical model of collagen fibrillogenesis based on diffusion limited aggregation. Journal of Molecular Biology, 1995, 247, 823-831.	4.2	62
64	Fell Muir Lecture: Collagen fibril formation in vitro and in vivo. International Journal of Experimental Pathology, 2017, 98, 4-16.	1.3	62
65	Chemical chaperone treatment reduces intracellular accumulation of mutant collagen IV and ameliorates the cellular phenotype of a COL4A2 mutation that causes haemorrhagic stroke. Human Molecular Genetics, 2014, 23, 283-292.	2.9	60
66	Collagen XXVII Is Developmentally Regulated and Forms Thin Fibrillar Structures Distinct from Those of Classical Vertebrate Fibrillar Collagens. Journal of Biological Chemistry, 2007, 282, 12791-12795.	3.4	59
67	Simple physical model of collagen fibrillogenesis based on diffusion limited aggregation. Journal of Molecular Biology, 1995, 247, 823-831.	4.2	58
68	Collagen fibril organisation in mammalian vitreous by freeze etch/rotary shadowing electron microscopy. Micron, 2001, 32, 301-306.	2.2	57
69	Deposition of collagen type I onto skeletal endothelium reveals a new role for blood vessels in regulating bone morphology. Development (Cambridge), 2016, 143, 3933-3943.	2.5	57
70	Temporal and spatial expression of collagens during murine atrioventricular heart valve development and maintenance. Developmental Dynamics, 2008, 237, 3051-3058.	1.8	53
71	An experimental model for studying the biomechanics of embryonic tendon: Evidence that the development of mechanical properties depends on the actinomyosin machinery. Matrix Biology, 2010, 29, 678-689.	3.6	53
72	Tenocyte contraction induces crimp formation in tendon-like tissue. Biomechanics and Modeling in Mechanobiology, 2012, 11, 449-459.	2.8	52

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73	Gremlin-2 is a BMP antagonist that is regulated by the circadian clock. Scientific Reports, 2014, 4, 5183.	3.3	52
74	Three-dimensional electron microscopy reveals the evolution of glomerular barrier injury. Scientific Reports, 2016, 6, 35068.	3.3	51
75	Key Matrix Proteins Within the Pancreatic Islet Basement Membrane Are Differentially Digested During Human Islet Isolation. American Journal of Transplantation, 2017, 17, 451-461.	4.7	50
76	Ehlers Danlos syndrome type VIIB. Incomplete cleavage of abnormal type I procollagen by N-proteinase in vitro results in the formation of copolymers of collagen and partially cleaved pNcollagen that are near circular in cross-section. Journal of Biological Chemistry, 1992, 267, 9093-100.	3.4	49
77	Assembly of Type I Collagen Fibrils de Novo by the Specific Enzymic Cleavage of pC Collagen.. Annals of the New York Academy of Sciences, 1990, 580, 214-224.	3.8	48
78	Collagen fibrils forming in developing tendon show an early and abrupt limitation in diameter at the growing tips. Journal of Molecular Biology, 1998, 283, 1049-1058.	4.2	48
79	Self-Assembly into Fibrils of a Homotrimer of Type I Collagen. Matrix Biology, 1992, 12, 256-263.	1.7	47
80	Axial structure of the heterotypic collagen fibrils of vitreous humour and cartilage. Journal of Molecular Biology, 2001, 306, 1011-1022.	4.2	47
81	Fibrin Gels Exhibit Improved Biological, Structural, and Mechanical Properties Compared with Collagen Gels in Cell-Based Tendon Tissue-Engineered Constructs. Tissue Engineering - Part A, 2015, 21, 438-450.	3.1	46
82	Enzymic Control of Collagen Fibril Shape. Journal of Molecular Biology, 1996, 261, 93-97.	4.2	44
83	Post-translational Modification of Bone Morphogenetic Protein-1 Is Required for Secretion and Stability of the Protein. Journal of Biological Chemistry, 2002, 277, 43327-43334.	3.4	44
84	Ehlers-Danlos syndrome type VIIB. Morphology of type I collagen fibrils formed in vivo and in vitro is determined by the conformation of the retained N-propeptide. Journal of Biological Chemistry, 1993, 268, 15758-65.	3.4	44
85	Live imaging of collagen deposition during skin development and repair in a collagen I â€“ GFP fusion transgenic zebrafish line. Developmental Biology, 2018, 441, 4-11.	2.0	43
86	Analysis of collagen fibril diameter distribution in connective tissues using small-angle X-ray scattering. Biochimica Et Biophysica Acta - General Subjects, 2005, 1722, 183-188.	2.4	42
87	Collagen XXVII Organises the Pericellular Matrix in the Growth Plate. PLoS ONE, 2011, 6, e29422.	2.5	42
88	Chapter 17 Electron Microscopy of Collagen Fibril Structure In Vitro and In Vivo Including Three-Dimensional Reconstruction. Methods in Cell Biology, 2008, 88, 319-345.	1.1	40
89	Role of dimerization and substrate exclusion in the regulation of bone morphogenetic protein-1 and mammalian tolloid. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 8561-8566.	7.1	40
90	Identification of the Minimal Domain Structure of Bone Morphogenetic Protein-1 (BMP-1) for Chordinase Activity. Journal of Biological Chemistry, 2005, 280, 22616-22623.	3.4	39

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91	A mouse model offers novel insights into the myopathy and tendinopathy often associated with pseudoachondroplasia and multiple epiphyseal dysplasia. Human Molecular Genetics, 2010, 19, 52-64.	2.9	39
92	Matrix metalloproteinase 14 is required for fibrous tissue expansion. ELife, 2015, 4, e09345.	6.0	39
93	Collagen fibril assembly: New approaches to unanswered questions. Matrix Biology Plus, 2021, 12, 100079.	3.5	38
94	Active Negative Control of Collagen Fibrillogenesis in Vivo. Journal of Biological Chemistry, 2008, 283, 12129-12135.	3.4	37
95	Enhanced Islet Cell Nucleomegaly Defines Diffuse Congenital Hyperinsulinism in Infancy but Not Other Forms of the Disease. American Journal of Clinical Pathology, 2016, 145, 757-768.	0.7	36
96	Collagen Assembly at the Cell Surface: Dogmas Revisited. Cells, 2021, 10, 662.	4.1	36
97	Metaphyseal Chondrodysplasia Type Schmid Mutations Are Predicted to Occur in Two Distinct Three-dimensional Clusters within Type X Collagen NC1 Domains That Retain the Ability to Trimerize. Journal of Biological Chemistry, 1999, 274, 3632-3641.	3.4	35
98	Type I procollagens containing substitutions of aspartate, arginine, and cysteine for glycine in the pro alpha 1 (I) chain are cleaved slowly by N-proteinase, but only the cysteine substitution introduces a kink in the molecule. Journal of Biological Chemistry, 1992, 267, 25521-8.	3.4	35
99	Assembly of Thin and Thick Fibrils of Collagen II from Recombinant Procollagen II. Journal of Biological Chemistry, 1996, 271, 14864-14869.	3.4	34
100	Echinoderm collagen fibrils grow by surface-nucleation-and-propagation from both centers and ends. Journal of Molecular Biology, 2000, 300, 531-540.	4.2	34
101	ER stress and basement membrane defects combine to cause glomerular and tubular renal disease resulting from Col4a1 mutations in mice. DMM Disease Models and Mechanisms, 2016, 9, 165-176.	2.4	34
102	Ablating hedgehog signaling in tenocytes during development impairs biomechanics and matrix organization of the adult murine patellar tendon enthesis. Journal of Orthopaedic Research, 2015, 33, 1142-1151.	2.3	33
103	Electron microscope 3D reconstruction of branched collagen fibrils in vivo. Scandinavian Journal of Medicine and Science in Sports, 2009, 19, 547-552.	2.9	32
104	Identification of Amino Acid Residues in Bone Morphogenetic Protein-1 Important for Procollagen C-proteinase Activity. Journal of Biological Chemistry, 2001, 276, 26237-26242.	3.4	30
105	Targeting lysyl oxidase reduces peritoneal fibrosis. PLoS ONE, 2017, 12, e0183013.	2.5	30
106	Deletion of Epidermal Growth Factor-like Domains Converts Mammalian Tolloid into a Chordinase and Effective Procollagen C-proteinase. Journal of Biological Chemistry, 2004, 279, 49835-49841.	3.4	29
107	The Precision of Lateral Size Control in the Assembly of Corneal Collagen Fibrils. Journal of Molecular Biology, 2005, 345, 773-784.	4.2	29
108	Stepwise proteolytic activation of typeÂI procollagen to collagen within the secretory pathway of tendon fibroblasts in situ. Biochemical Journal, 2012, 441, 707-717.	3.7	28

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109	Growth of sea cucumber collagen fibrils occurs at the tips and centers in a coordinated manner 1 1Edited by W. Baumeister. Journal of Molecular Biology, 1998, 284, 1417-1424.	4.2	27
110	Growth of Collagen Fibril Seeds from Embryonic Tendon: Fractured Fibril Ends Nucleate New Tip Growth. Journal of Molecular Biology, 2010, 399, 9-16.	4.2	27
111	Chick tendon fibroblast transcriptome and shape depend on whether the cell has made its own collagen matrix. Scientific Reports, 2015, 5, 13555.	3.3	27
112	Self-assembly of rodlike particles in two dimensions: A simple model for collagen fibrillogenesis. Physical Review E, 1994, 50, 2963-2966.	2.1	26
113	Substitutions of aspartic acid for glycine-220 and of arginine for glycine-664 in the triple helix of the pro Î±1(I) chain of type I procollagen produce lethal osteogenesis imperfecta and disrupt the ability of collagen fibrils to incorporate crystalline hydroxyapatite. Biochemical Journal, 1995, 311, 815-820.	3.7	25
114	The cell biology of suturing tendons. Matrix Biology, 2010, 29, 525-536.	3.6	25
115	Preservation of circadian rhythms by the protein folding chaperone, BiP. FASEB Journal, 2019, 33, 7479-7489.	0.5	25
116	Surface located procollagen N-propeptides on dermatosparactic collagen fibrils are not cleaved by procollagen N-proteinase and do not inhibit binding of decorin to the fibril surface. Journal of Molecular Biology, 1998, 278, 195-204.	4.2	24
117	Design and synthesis of acidic dipeptide hydroxamate inhibitors of procollagenC-proteinase. Journal of Peptide Science, 2000, 6, 489-495.	1.4	23
118	Non-muscle myosin IIB (Myh10) is required for epicardial function and coronary vessel formation during mammalian development. PLoS Genetics, 2017, 13, e1007068.	3.5	22
119	4-Sodium phenyl butyric acid has both efficacy and counter-indicative effects in the treatment of Col4a1 disease. Human Molecular Genetics, 2019, 28, 628-638.	2.9	22
120	First Evidence of Bone Morphogenetic Protein 1 Expression and Activity in Sheep Ovarian Follicles1. Biology of Reproduction, 2010, 83, 138-146.	2.7	21
121	Three-dimensional reconstructions of extracellular matrix polymers using automated electron tomography. Journal of Structural Biology, 2002, 138, 130-136.	2.8	20
122	Structural and functional evidence for a substrate exclusion mechanism in mammalian tolloid likeâ€1 (TLLâ€1) proteinase. FEBS Letters, 2010, 584, 657-661.	2.8	20
123	Synchronized mechanical oscillations at the cellâ€“matrix interface in the formation of tensile tissue. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9288-E9297.	7.1	20
124	Arhgap28 Is a RhoGAP that Inactivates RhoA and Downregulates Stress Fibers. PLoS ONE, 2014, 9, e107036.	2.5	20
125	Advances in the understanding of tendinopathies: <scp>A</scp> report on the <scp>S</scp>econd <scp>H</scp>avemeyer <scp>W</scp>orkshop on equine tendon disease. Equine Veterinary Journal, 2014, 46, 4-9.	1.7	17
126	Circadian time series proteomics reveals daily dynamics in cartilage physiology. Osteoarthritis and Cartilage, 2021, 29, 739-749.	1.3	17

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127	Discovery of re-purposed drugs that slow SARS-CoV-2 replication in human cells. PLoS Pathogens, 2021, 17, e1009840.	4.7	17
128	Molecular cloning, expression and chromosomal localization of a human gene encoding a 33 kDa putative metallopeptidase (PRSM1). Gene, 1996, 174, 135-143.	2.2	16
129	Importance of the circadian clock in tendon development. Current Topics in Developmental Biology, 2019, 133, 309-342.	2.2	16
130	A tripeptide deletion in the triple-helical domain of the pro alpha 1(I) chain of type I procollagen in a patient with lethal osteogenesis imperfecta does not alter cleavage of the molecule by N-proteinase. Journal of Biological Chemistry, 1992, 267, 25529-34.	3.4	16
131	Electron microscopy in cell-matrix research. Methods, 2008, 45, 53-64.	3.8	15
132	Modification of the Composition of Articular Cartilage Collagen Fibrils with Increasing Age. Connective Tissue Research, 2008, 49, 374-382.	2.3	15
133	Substitution of serine for glycine 883 in the triple helix of the pro alpha 1 (I) chain of type I procollagen produces osteogenesis imperfecta type IV and introduces a structural change in the triple helix that does not alter cleavage of the molecule by procollagen N-proteinase.. Journal of Biological Chemistry, 1994, 269, 30352-30357.	3.4	15
134	Collagen IX: Evidence for a structural association between NC4 domains in cartilage and a novel cleavage site in the Î±1(IX) chain. Matrix Biology, 1998, 16, 497-505.	3.6	14
135	Serial block faceâ€scanning electron microscopy: A tool for studying embryonic development at the cellâ€“matrix interface. Birth Defects Research Part C: Embryo Today Reviews, 2015, 105, 9-18.	3.6	14
136	IL-13 deficiency exacerbates lung damage and impairs epithelial-derived type 2 molecules during nematode infection. Life Science Alliance, 2021, 4, e202001000.	2.8	14
137	[50] Procollagen C-peptidase: Procollagen C-proteinase. Methods in Enzymology, 1995, 248, 771-781.	1.0	13
138	A Complete Domain Structure of Drosophila Tolloid Is Required for Cleavage of Short Gastrulation. Journal of Biological Chemistry, 2006, 281, 13258-13267.	3.4	13
139	Giantin is required for intracellular N-terminal processing of type I procollagen. Journal of Cell Biology, 2021, 220, .	5.2	13
140	Recombinant expression systems for the production of collagen. Biochemical Society Transactions, 2000, 28, 350-3.	3.4	13
141	Tracing the pathway between mutation and phenotype in osteogenesis imperfecta: Isolation of mineralization-specific genes. , 1996, 63, 167-174.		12
142	Substitution of serine for glycine 883 in the triple helix of the pro alpha 1 (I) chain of type I procollagen produces osteogenesis imperfecta type IV and introduces a structural change in the triple helix that does not alter cleavage of the molecule by procollagen N-proteinase. Journal of Biological Chemistry, 1994, 269, 30352-7.	3.4	12
143	Learning how mutations in type I collagen genes cause connective tissue disease. International Journal of Experimental Pathology, 1993, 74, 319-23.	1.3	11
144	On the regulation of collagen-fibril shape and form. Biochemical Society Transactions, 1991, 19, 808-811.	3.4	10

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145	The aromatic zipper: A model for the initial trimerization event in collagen folding. Biochemical Society Transactions, 1991, 19, 365S-365S.	3.4	9
146	Changes in S100 Proteins Identified in Healthy Skin following Electrical Stimulation: Relevance for Wound Healing. Advances in Skin and Wound Care, 2018, 31, 322-327.	1.0	9
147	Material-driven fibronectin assembly rescues matrix defects due to mutations in collagen IV in fibroblasts. Biomaterials, 2020, 252, 120090.	11.4	9
148	Protein structure and the specific heat of water. Nature, 1987, 325, 395-395.	27.8	8
149	[49] Procollagen N-peptidases: Procollagen N-proteinases. Methods in Enzymology, 1995, 248, 756-771.	1.0	8
150	Cellular homeostatic tension and force transmission measured in human engineered tendon. Journal of Biomechanics, 2018, 78, 161-165.	2.1	8
151	Dynamic High-Sensitivity Quantitation of Procollagen-I by Endogenous CRISPR-Cas9 NanoLuciferase Tagging. Cells, 2020, 9, 2070.	4.1	8
152	A study of staining for electron microscopy using collagen as a model systemâ€”VII. The effect of formaldehyde fixation. Micron and Microscopica Acta, 1988, 19, 213-226.	0.2	7
153	Electron Cryomicroscopy of Fibrillar Collagens. , 2000, 139, 95-109.		7
154	An Electron Microscope Study of the First-Formed Aggregates in Collagen Fibril Assembly in Vitro. Annals of the New York Academy of Sciences, 1985, 460, 456-460.	3.8	6
155	Age-related dataset on the mechanical properties and collagen fibril structure of tendons from a murine model. Scientific Data, 2018, 5, 180140.	5.3	6
156	The needle in the ECM haystack. Nature Reviews Molecular Cell Biology, 2014, 15, 769-769.	37.0	5
157	Effects of Mutations that Change Primary Structure of Collagen on the Self-Assembly of the Protein into Fibrils. Springer Series in Biophysics, 1989, , 81-89.	0.4	5
158	Procollagen Processing Control of Type I Collagen Fibril Assembly. Springer Series in Biophysics, 1989, , 292-301.	0.4	4
159	Matrix fully loaded: Assembly and secretion of collagen fibrils. Biochemist, 2003, 25, 11-13.	0.5	4
160	Expression of Type I Procollagen Genes. Novartis Foundation Symposium, 1988, 136, 142-160.	1.1	4
161	Specific glycanforms of type IX collagen accumulate in embryonic chick sterna after 17 days of development. Glycobiology, 1998, 8, 1013-1019.	2.5	2
162	In Vitro Techniques. , 2006, , 201-378.		2

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163	Introduction: Collagensâ€"folding, FACITS, MULTIPLEXINS, membrane spanning and integrin-collagen interactions. Seminars in Cell and Developmental Biology, 1996, 7, 629-630.	5.0	1
164	Collagen pretzels revealed by electron microscopy. Biochemical Journal, 2007, 404, e7-8.	3.7	1
165	Analysing the Structure of Collagen Fibres in SBFSEM Images. , 2016, , .		1
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