

Aronia Scientific Research – Antibacterial, Antiviral, Anti-allergy
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Title	Authors	Reference	URL Link
Inhibition of streptococcal biofilm formation by Aronia by extracellular RNA degradation	Lee HJ, Oh SY, Hong SH.	J Sci Food Agric. 2020 Mar 15;100(4):1806-1811. doi: 10.1002/jsfa.10223. Epub 2020 Jan 10.	Inhibition of streptococcal biofilm formation by Aronia by extracellular RNA degradation - Lee - 2020 - Journal of the Science of Food and Agriculture - Wiley Online Library
Composition and Antibacterial Activity of Aronia melanocarpa (Michx.) Elliot, Cornus mas L. and Chaenomeles superba Lindl. Leaf Extracts	Efenberger-Szmechtyk M, Nowak A, Czyżowska A, Kucharska AZ, Fecka I.	Molecules. 2020 Apr 25;25(9):2011. doi: 10.3390/molecules25092011.	Molecules Free Full-Text Composition and Antibacterial Activity of Aronia melanocarpa (Michx.) Elliot, Cornus mas L. and Chaenomeles superba Lindl. Leaf Extracts HTML (mdpi.com)
Antibacterial and in vitro antideementia effects of aronia (Aronia melanocarpa) leaf extracts	Kim SS, Shin Y.	Food Sci Biotechnol. 2020 May 22;29(9):1295-1300. doi: 10.1007/s10068-020-00774-y. eCollection 2020 Sep.	Antibacterial and in vitro antideementia effects of aronia (Aronia melanocarpa) leaf extracts - PubMed (nih.gov)
Immunomodulatory activity and protective effects of chokeberry fruit extract on Listeria monocytogenes infection in mice	Gajić D, Saksida T, Koprivica I, Šenerović L, Morić I, Šavikin K, Menković N, Pejnović N, Stojanović I.	Food Funct. 2020 Sep 23;11(9):7793-7803. doi: 10.1039/d0fo00946f.	Immunomodulatory activity and protective effects of chokeberry fruit extract on Listeria monocytogenes infection in mice - Food & Function (RSC Publishing)
Biological Evaluation of Black Chokeberry Extract Free and Embedded in Two Mesoporous Silica-Type Matrices	Buda V, Brezoiu AM, Berger D, Pavel IZ, Muntean D, Minda D, Dehelean CA, Soica C, Diaconeasa Z, Folescu R, Danciu C.	Pharmaceutics. 2020 Sep 1;12(9):838. doi: 10.3390/pharmaceutics12090838.	Pharmaceutics Free Full-Text Biological Evaluation of Black Chokeberry Extract Free and Embedded in Two Mesoporous Silica-Type Matrices HTML (mdpi.com)
Effects of aronia berry (poly)phenols on vascular function and gut microbiota: a double-blind	Istas G, Wood E, Le Sayec M, Rawlings C, Yoon J, Dandavate V, Cera D, Rampelli S, Costabile A,	Am J Clin Nutr. 2019 Aug 1;110(2):316-329. doi: 10.1093/ajcn/nqz075.	Effects of aronia berry (poly)phenols on vascular function and gut microbiota: a double-blind randomized controlled trial in adult men The American Journal of

randomized controlled trial in adult men	Fromentin E, Rodriguez-Mateos A.		Clinical Nutrition Oxford Academic (oup.com)
Black chokeberry (<i>Aronia melanocarpa</i>) polyphenols reveal different antioxidant, antimicrobial and neutrophil-modulating activities	Denev P, Číž M, Kratchanova M, Blazheva D.	Food Chem. 2019 Jun 30;284:108-117. doi: 10.1016/j.foodchem.2019.01.108. Epub 2019 Jan 23.	Black chokeberry (<i>Aronia melanocarpa</i>) polyphenols reveal different antioxidant, antimicrobial and neutrophil-modulating activities - ScienceDirect
Antibacterial and antioxidative properties of different parts of garden rhubarb, blackcurrant, chokeberry and blue honeysuckle	Raudsepp P, Koskar J, Anton D, Meremäe K, Kapp K, Laurson P, Bleive U, Kaldmäe H, Roasto M, Püssa T.	J Sci Food Agric. 2019 Mar 30;99(5):2311-2320. doi: 10.1002/jsfa.9429. Epub 2018 Dec 3.	Antibacterial and antioxidative properties of different parts of garden rhubarb, blackcurrant, chokeberry and blue honeysuckle - Raudsepp - 2019 - Journal of the Science of Food and Agriculture - Wiley Online Library
Comparative in vitro studies of the biological potential and chemical composition of stems, leaves and berries <i>Aronia melanocarpa</i> 's extracts obtained by subcritical water extraction	Cvetanović A, Zengin G, Zeković Z, Švarc-Gajić J, Ražić S, Damjanović A, Mašković P, Mitić M.	Food Chem Toxicol. 2018 Nov;121:458-466. doi: 10.1016/j.fct.2018.09.045. Epub 2018 Sep 21.	Comparative in vitro studies of the biological potential and chemical composition of stems, leaves and berries <i>Aronia melanocarpa</i>'s extracts obtained by subcritical water extraction - ScienceDirect
Quantification of anthocyanins in elderberry and chokeberry dietary supplements	Vlachoianis C, Zimmermann BF, Chrubasik-Hausmann S.	Phytother Res. 2015 Apr;29(4):561-5. doi: 10.1002/ptr.5284. Epub 2015 Jan 19.	Quantification of Anthocyanins in Elderberry and Chokeberry Dietary Supplements - Vlachoianis - 2015 - Phytotherapy Research - Wiley Online Library
Antioxidant, antimicrobial and neutrophil-modulating activities of herb extracts	Denev P, Kratchanova M, Ciz M, Lojek A, Vasicek O, Blazheva D, Nedelcheva P, Vojtek L, Hyrsil P.	Acta Biochim Pol. 2014;61(2):359-67. Epub 2014 Jun 18.	359.pdf (actabp.pl)
<i>Aronia melanocarpa</i> and its components demonstrate antiviral activity against influenza viruses	Park S, Kim JI, Lee I, Lee S, Hwang MW, Bae JY, Heo J, Kim D, Han SZ, Park MS.	Biochem Biophys Res Commun. 2013 Oct 11;440(1):14-9. doi: 10.1016/j.bbrc.2013.08.090. Epub 2013 Sep 5.	Aronia melanocarpa and its components demonstrate antiviral activity against influenza viruses - ScienceDirect

The immunomodulation effect of Aronia extract lacks association with its antioxidant anthocyanins	Xu J, Mojsoska B.	J Med Food. 2013 Apr;16(4):334-42. doi: 10.1089/jmf.2012.0151.	The Immunomodulation Effect of Aronia Extract Lacks Association with Its Antioxidant Anthocyanins Journal of Medicinal Food (liebertpub.com)
Effects of Aronia melanocarpa constituents on biofilm formation of Escherichia coli and Bacillus cereus	Bräunlich M, Økstad OA, Slimestad R, Wangensteen H, Malterud KE, Barsett H.	Molecules. 2013 Dec 5;18(12):14989-99. doi: 10.3390/molecules181214989	Molecules Free Full-Text Effects of Aronia melanocarpa Constituents on Biofilm Formation of Escherichia coli and Bacillus cereus HTML (mdpi.com)
Anthocyanins as antimicrobial agents of natural plant origin	Cisowska A, Wojnicz D, Hendrich AB.	Nat Prod Commun. 2011 Jan;6(1):149-56.	Anthocyanins as antimicrobial agents of natural plant origin - PubMed (nih.gov)
Bioconversion of grape and chokeberry wine polyphenols during simulated gastrointestinal in vitro digestion	Gumienna M, Lasik M, Czarnecki Z.	Int J Food Sci Nutr. 2011 May;62(3):226-33. doi: 10.3109/09637486.2010.532115. Epub 2010 Dec 8.	(PDF) Bioconversion of grape and chokeberry wine polyphenols during simulated gastrointestinal in vitro digestion (researchgate.net)
Aronia plants: a review of traditional use, biological activities, and perspectives for modern medicine	Kokotkiewicz A, Jaremicz Z, Luczkiewicz M.	J Med Food. 2010 Apr;13(2):255-69. doi: 10.1089/jmf.2009.0062.	Aronia Plants: A Review of Traditional Use, Biological Activities, and Perspectives for Modern Medicine Journal of Medicinal Food (liebertpub.com)
Current knowledge of Aronia melanocarpa as a medicinal plant	Valcheva-Kuzmanova SV, Belcheva A.	Folia Med (Plovdiv). 2006;48(2):11-7.	Current knowledge of Aronia melanocarpa as a medicinal plant - PubMed (nih.gov)
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The immune-enhancing effect of anthocyanin-fucoidan nanocomplex in RAW264.7 macrophages and cyclophosphamide-induced immunosuppressed mice	Han NR, Kim HJ, Lee JS, Kim HY, Moon PD, Kim HM, Jeong HJ.	J Food Biochem. 2021 Feb 2:e13631. doi: 10.1111/jfbc.13631. Online ahead of print.	The immune-enhancing effect of anthocyanin-fucoidan nanocomplex in RAW264.7 macrophages and cyclophosphamide-induced immunosuppressed mice - Han - - Journal of Food Biochemistry - Wiley Online Library
The Protective Effect of Anthocyanins Extracted from Aronia Melanocarpa Berry in Renal Ischemia-Reperfusion Injury in Mice	Li L, Li J, Xu H, Zhu F, Li Z, Lu H, Zhang J, Yang Z, Liu Y.	Mediators Inflamm. 2021 Jan 22;2021:7372893. doi: 10.1155/2021/7372893. eCollection 2021.	The Protective Effect of Anthocyanins Extracted from Aronia Melanocarpa Berry in Renal Ischemia-Reperfusion Injury in Mice (nih.gov)

Antibacterial mechanisms of Aronia melanocarpa (Michx.), Chaenomeles superba Lindl. and Cornus mas L. leaf extracts	Efenberger-Szmechtyk M, Nowak A, Czyżowska A, Śniadowska M, Otlewska A, Żyżelewicz D.	Food Chem. 2021 Jul 15;350:129218. doi: 10.1016/j.foodchem.2021.129218. Epub 2021 Feb 6.	Antibacterial mechanisms of Aronia melanocarpa (Michx.), Chaenomeles superba Lindl. and Cornus mas L. leaf extracts - ScienceDirect
Antimicrobial Photodynamic Treatment with Mother Juices and Their Single Compounds as Photosensitizers	Chrubasik-Hausmann S, Hellwig E, Müller M, Al-Ahmad A.	Nutrients. 2021 Feb 24;13(3):710. doi: 10.3390/nu13030710.	Nutrients Free Full-Text Antimicrobial Photodynamic Treatment with Mother Juices and Their Single Compounds as Photosensitizers (mdpi.com)
Assessment of Antimicrobial Activity of Pomegranate, Cranberry, and Black Chokeberry Extracts against Foodborne Pathogens	Daoutidou M, Plessas S, Alexopoulos A, Mantzourani I.	Foods. 2021 Feb 24;10(3):486. doi: 10.3390/foods10030486.	Assessment of Antimicrobial Activity of Pomegranate, Cranberry, and Black Chokeberry Extracts against Foodborne Pathogens (nih.gov)
The enrichment of honey with Aronia melanocarpa fruits enhances its in vitro and in vivo antioxidant potential and intensifies its antibacterial and antiviral properties	Miłek M, Grabek-Lejko D, Stępień K, Sidor E, Mołoń M, Dżugan M.	Food Funct. 2021 Oct 4;12(19):8920-8931. doi: 10.1039/d1fo02248b.	The enrichment of honey with Aronia melanocarpa fruits enhances its in vitro and in vivo antioxidant potential and intensifies its antibacterial and antiviral properties - Food & Function (RSC Publishing)