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Research Topic

Tocotrienols

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Overview of Terms

Associated with Your Search Topic

24 Relevant Results for
Diseases

Disease/Symptom	Cumulative Knowledge	Article Count
Oxidative Stress	4	2
Aspirin-Induced Toxicity	2	1
Bone Diseases	2	1
Breast Cancer	2	2
Diabetes Mellitus: Type 1: Prevention	2	1
Gastric Ulcer	2	1
Kidney Damage	2	1
Lipid Peroxidation	2	1
Liver Cancer	2	1
Osteoporosis	2	1
Prostate Cancer	2	1
Bowel Stenosis	1	1
Cancer Metastasis	1	1
Cervical Cancer	1	1
Chemotherapy-Induced Toxicity: Cisplatin	1	1
Crohn's Disease	1	1
Glioma	1	1
High Cholesterol	1	1
Human Gastric Adenocarcinoma	1	1
Malignant Melanoma	1	1
Melanoma	1	1
Melanoma: Metastatic	1	1
Mesothelioma	1	1
Obesity	1	1

15 Relevant Results for Pharmacological Actions

Pharmacological Action Name	Cumulative Knowledge	Article Count
Antioxidants	12	6
Apoptotic	5	4
Renoprotective	4	2
Anti-Inflammatory Agents	2	2
Anticarcinogenic Agents	2	1
Antiproliferative	2	2
Cell cycle arrest	2	1
Chemopreventive	2	1
Gastroprotective	2	1
Hypoglycemic Agents	2	1
Interleukin-6 Downregulation	2	1
Malondialdehyde Down-regulation	2	1
Anti-metastatic	1	1
Chemosensitizer	1	1
Interleukin-6 upregulation	1	1

10 Relevant Results for Substances

Substance Name	Cumulative Knowledge	Article Count
Vitamin E	6	4
Palm Oil	5	3
Rice Bran	3	2
Tocotrienol: Delta	3	3
Palm Tree	2	1
Tocotrienol: Gamma	2	2

Vitamin E: Gamma-tocotrienol	2	2
EGCG (Epigallocatechin gallate)	1	1
Gingerol	1	1
Tocotrienol: Alpha	1	1

2 Relevant Results for Keywords

Keyword Name	Cumulative Knowledge	Article Count
Drug-Plant-Vitamin Synergies	2	2
Natural Substance/Drug Synergy	1	1

View the Evidence.
18 Research Articles in Total.

Category : Diseases

Aspirin-Induced Toxicity (AC 1) (CK 2)

Tocotrienol-rich fraction and tocopherol prevent aspirin-induced gastric lesions.

Pubmed Data : Asia Pac J Clin Nutr. 2002;11(4):309-13. PMID: [12495264](#)

Article Published Date : Jan 01, 2002

Authors : M I Nafeeza, A M Fauzee, J Kamsiah, M T Gapor

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16) , Vitamin E : CK(1618) : AC(283)

Diseases : Aspirin-Induced Toxicity : CK(87) : AC(26) , Gastric Ulcer : CK(250) : AC(96) , Lipid Peroxidation : CK(590) : AC(144)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Gastroprotective : CK(117) : AC(56) , Malondialdehyde Down-regulation : CK(319) : AC(60)

Bone Diseases (AC 1) (CK 2)

Tocotrienols are more effective than d-alpha tocopherol in protecting the bone from free radical damage.

Pubmed Data : N Engl J Med. 2005 Mar 31;352(13):1293-304. Epub 2005 Mar 7. PMID: [18598299](#)

Article Published Date : Mar 31, 2005

Authors : Sandra Maniam, Norazlina Mohamed, Ahmad Nazrun Shuid, Ima Nirwana Soelaiman

Study Type : Animal Study

Additional Links

Substances : Palm Tree : CK(8) : AC(4) , Tocotrienols : CK(23) : AC(16)

Diseases : Bone Diseases : CK(15) : AC(4)

Pharmacological Actions : Antioxidants : CK(6873) : AC(2521)

Bowel Stenosis (AC 1) (CK 1)

Tocotrienols have potenti antifibrogenic effects which may help prevent and/or treat bowel stenosis in Crohn's disease patients.

Pubmed Data : Inflamm Bowel Dis. 2010 Aug 3. Epub 2010 Aug 3. PMID: [20684017](#)

Article Published Date : Aug 03, 2010

Authors : Jeroni Luna, Maria Carme Masamunt, Mariana Rickmann, Rut Mora, Carolina España, Salvadora Delgado, Josep Llach, Eva Vaquero, Miquel Sans

Study Type : In Vitro Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16)

Diseases : Bowel Stenosis : CK(1) : AC(1) , Crohn's Disease : CK(122) : AC(22)

Breast Cancer (AC 2) (CK 2)

Palm tocotrienols inhibit proliferation of mouse mammary cancer cells.

Pubmed Data : J Interferon Cytokine Res. 2010 Dec;30(12):909-16. PMID: [21121862](#)

Article Published Date : Dec 01, 2010

Authors : Kanga Rani Selvaduray, Ammu K Radhakrishnan, Methil Kannan Kutty, Kalanithi Nesaretnam

Study Type : In Vitro Study

Additional Links

Substances : Palm Oil : CK(28) : AC(17) , Tocotrienol: Alpha : CK(2) : AC(2) , Tocotrienol: Delta : CK(9) : AC(7), Tocotrienol: Gamma : CK(25) : AC(12) , Tocotrienols : CK(23) : AC(16)

Diseases : Breast Cancer : CK(3393) : AC(1003)

Tocotrienols induce programmed cell death in breast cancer cell lines.

Pubmed Data : Breast Cancer Res Treat. 2010 Feb 16. Epub 2010 Feb 16. PMID: [20157774](#)

Article Published Date : Feb 16, 2010

Authors : Sook Kyung Park, Bob G Sanders, Kimberly Kline

Study Type : In Vitro Study

Additional Links

Substances : Tocotrienols : CK(25) : AC(19)

Diseases : Breast Cancer : CK(3393) : AC(1003)

Pharmacological Actions : Apoptotic : CK(2781) : AC(1944)

Cancer Metastasis (AC 1) (CK 1)

The anti-inflammatory effect of unsaturated tocotrienols could be highly promising in the regulation of tumor microenvironments.

Pubmed Data : Biofactors. 2016 Mar 7. Epub 2016 Mar 7. PMID: [26948691](#)

Article Published Date : Mar 06, 2016

Authors : Leanne De Silva, Lay Hong Chuah, Puvaneswari Meganathan, Ju-Yen Fu

Study Type : Review

Additional Links

Substances : Tocotrienols : CK(23) : AC(16) , Vitamin E : CK(1618) : AC(283)

Diseases : Cancer Metastasis : CK(285) : AC(145)

Pharmacological Actions : Anti-Inflammatory Agents : CK(4010) : AC(1402), Anti-metastatic : CK(397) : AC(127)

Additional Keywords : Anti-metastatic : CK(397) : AC(127)

Cervical Cancer (AC 1) (CK 1)

Tocotrienols inhibit growth and induce programmed cell death in human cervical cancer cells.

Pubmed Data : Integr Cancer Ther. 2010 Feb 11. Epub 2010 Feb 11. PMID: [20150225](#)

Article Published Date : Feb 11, 2010

Authors : Shu-Jing Wu, Lean-Teik Ng

Study Type : In Vitro Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16)

Diseases : Cervical Cancer : CK(337) : AC(137)

Pharmacological Actions : Antiproliferative : CK(2321) : AC(1573), Apoptotic : CK(2781) : AC(1944), Interleukin-6 upregulation : CK(26) : AC(7)

Chemotherapy-Induced Toxicity: Cisplatin (AC 1) (CK 1)

A tocotrienol-rich fraction from rice bran enhances cisplatin-induced cytotoxicity in human mesothelioma cells.

Pubmed Data : Phytother Res. 2010 Feb 1. Epub 2010 Feb 1. PMID: [20127663](#)

Article Published Date : Feb 01, 2010

Authors : Keisuke Nakashima, Nantiga Virgona, Mio Miyazawa, Takashi Watanabe, Tomohiro Yano

Study Type : In Vitro Study

Additional Links

Substances : Rice Bran : CK(29) : AC(14) , Tocotrienols : CK(23) : AC(16)

Diseases : Chemotherapy-Induced Toxicity: Cisplatin : CK(274) : AC(76) , Mesothelioma : CK(30) : AC(10)

Pharmacological Actions : Chemosensitizer : CK(317) : AC(176)

Additional Keywords : Drug-Plant-Vitamin Synergies : CK(965) : AC(266)

Crohn's Disease (AC 1) (CK 1)

Tocotrienols have potenti antifibrogenic effects which may help prevent and/or treat bowel stenosis in Crohn's disease patients.

Pubmed Data : Inflamm Bowel Dis. 2010 Aug 3. Epub 2010 Aug 3. PMID: [20684017](#)

Article Published Date : Aug 03, 2010

Authors : Jeroni Luna, Maria Carme Masamunt, Mariana Rickmann, Rut Mora, Carolina España, Salvadora Delgado, Josep Llach, Eva Vaquero, Miquel Sans

Study Type : In Vitro Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16)

Diseases : Bowel Stenosis : CK(1) : AC(1) , Crohn's Disease : CK(122) : AC(22)

Diabetes Mellitus: Type 1: Prevention (AC 1) (CK 2)

Tocotrienol rich fractions of palm oil and rice bran oil protect against kidney damage associated with high blood sugar in type 1 diabetes.

Pubmed Data : Chem Biol Interact. 2010 Dec 5;188(3):651-8. Epub 2010 Sep 28. PMID: [20816776](#)

Article Published Date : Dec 05, 2010

Authors : Shabeena Siddiqui, Mohd Rashid Khan, Waseem A Siddiqui

Study Type : Animal Study

Additional Links

Substances : Palm Oil : CK(28) : AC(16) , Rice Bran : CK(29) : AC(14) , Tocotrienols : CK(23) : AC(16)

Diseases : Diabetes Mellitus: Type 1: Prevention : CK(240) : AC(36) , Oxidative Stress : CK(3677) : AC(1321)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Hypoglycemic Agents : CK(1190) : AC(268), Renoprotective : CK(222) : AC(106)

Gastric Ulcer (AC 1) (CK 2)

Tocotrienol-rich fraction and tocopherol prevent aspirin-induced gastric lesions.

Pubmed Data : Asia Pac J Clin Nutr. 2002;11(4):309-13. PMID: [12495264](#)

Article Published Date : Jan 01, 2002

Authors : M I Nafeeza, A M Fauzee, J Kamsiah, M T Gapor

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16) , Vitamin E : CK(1618) : AC(283)

Diseases : Aspirin-Induced Toxicity : CK(87) : AC(26), Gastric Ulcer : CK(250) : AC(96) , Lipid Peroxidation : CK(590) : AC(144)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Gastroprotective : CK(117) : AC(56), Malondialdehyde Down-regulation : CK(319) : AC(60)

Glioma (AC 1) (CK 1)

[6]-gingerol and epigallocatechin gallate (EGCG) synergistically induced apoptosis and inhibits the proliferation 1321N1 and LN18 cells.

Pubmed Data : Molecules. 2014 ;19(9):14528-41. Epub 2014 Sep 12. PMID: [25221872](#)

Article Published Date : Dec 31, 2013

Authors : Amirah Abdul Rahman, Suzana Makpol, Rahman Jamal, Roslan Harun, Norfilza Mokhtar,

Wan Zurinah Wan Ngah

Study Type : In Vitro Study

Additional Links

Substances : EGCG (Epigallocatechin gallate) : CK(511) : AC(269) , Gingerol : CK(27) : AC(2), Tocotrienols : CK(25) : AC(19)

Diseases : Glioma : CK(168) : AC(79)

Pharmacological Actions : Antiproliferative : CK(2321) : AC(1573), Apoptotic : CK(2781) : AC(1944)

Additional Keywords : Natural Substance/Drug Synergy : CK(172) : AC(48)

High Cholesterol (AC 1) (CK 1)

Gamma- and delta-tocotrienol down-regulate cholesterol production.

Pubmed Data : J Biol Chem. 2006 Sep 1;281(35):25054-61. Epub 2006 Jul 10. PMID: [16831864](#)

Article Published Date : Sep 01, 2006

Authors : Bao-Liang Song, Russell A DeBose-Boyd

Study Type : In Vitro Study

Additional Links

Substances : Tocotrienol: Delta : CK(9) : AC(7) , Tocotrienols : CK(23) : AC(16) , Vitamin E : CK(1618) : AC(283)

Diseases : High Cholesterol : CK(2034) : AC(199)

Human Gastric Adenocarcinoma (AC 1) (CK 1)

Gamma Tocotrienol (vitamin E fraction) induces cell death in human gastric cancer cells.

Pubmed Data : Arterioscler Thromb Vasc Biol. 2009 Aug;29(8):1164-71. Epub 2009 May 28. PMID: [18602811](#)

Article Published Date : Aug 01, 2009

Authors : Wenguang Sun, Weili Xu, Huikun Liu, Jiaren Liu, Qi Wang, Jin Zhou, Fengli Dong, Bingqing

Chen

Study Type : In Vitro Study

Additional Links

Substances : Tocotrienols : CK(25) : AC(19)

Diseases : Human Gastric Adenocarcinoma : CK(3) : AC(3)

Kidney Damage (AC 1) (CK 2)

A tocotrienol rich fraction of palm oil protects against chemically-induced kidney damage.

Pubmed Data : Chem Biol Interact. 2010 Jul 30;186(2):228-38. Epub 2010 Apr 28. PMID: [20433818](#)

Article Published Date : Jul 30, 2010

Authors : Mohd Rashid Khan, Shabeena Siddiqui, Kehkashan Parveen, Saleem Javed, Sandhya Diwakar, Waseem A Siddiqui

Study Type : Animal Study

Additional Links

Substances : Palm Oil : CK(28) : AC(16) , Tocotrienols : CK(23) : AC(16)

Diseases : Kidney Damage : CK(144) : AC(42) , Oxidative Stress : CK(3677) : AC(1321)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Renoprotective : CK(222) : AC(106)

Lipid Peroxidation (AC 1) (CK 2)

Tocotrienol-rich fraction and tocopherol prevent aspirin-induced gastric lesions.

Pubmed Data : Asia Pac J Clin Nutr. 2002;11(4):309-13. PMID: [12495264](#)

Article Published Date : Jan 01, 2002

Authors : M I Nafeeza, A M Fauzee, J Kamsiah, M T Gapor

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16) , Vitamin E : CK(1618) : AC(283)

Diseases : Aspirin-Induced Toxicity : CK(87) : AC(26) , Gastric Ulcer : CK(250) : AC(96) , Lipid Peroxidation : CK(590) : AC(144)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004), Gastroprotective : CK(117) : AC(56), Malondialdehyde Down-regulation : CK(319) : AC(60)

Liver Cancer (AC 1) (CK 2)

Tocotrienols inhibit hepatocarcinogenesis induced by 2-acetylaminofluorene in rats.

Pubmed Data : Am J Clin Nutr. 1991 Apr ;53(4 Suppl):1076S-1081S. PMID: [1672785](#)

Article Published Date : Apr 01, 1991

Authors : W Z Ngah, Z Jarien, M M San, A Marzuki, G M Top, N A Shamaan, K A Kadir

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(25) : AC(19)

Diseases : Liver Cancer : CK(1166) : AC(427)

Pharmacological Actions : Antioxidants : CK(6886) : AC(2521), Chemopreventive : CK(2626) : AC(740)

Malignant Melanoma (AC 1) (CK 1)

Gamma-tocotrienol has broad therapeutic activity against human melanoma cells.

Pubmed Data : Nutr Cancer. 2009;61(3):357-66. PMID: [19373609](#)

Article Published Date : Jan 01, 2009

Authors : Piek Ngoh Chang, Wei Ney Yap, Davy Tak Wing Lee, M T Ling, Y C Wong, Yee Leng Yap

Study Type : In Vitro Study

Additional Links

Substances : Tocotrienol: Gamma : CK(25) : AC(12), Tocotrienols : CK(23) : AC(16), Vitamin E: Gamma-tocotrienol : CK(43) : AC(12)

Diseases : Malignant Melanoma : CK(189) : AC(8), Melanoma : CK(271) : AC(142), Melanoma: Metastatic : CK(21) : AC(13)

Additional Keywords : Drug-Plant-Vitamin Synergies : CK(965) : AC(266)

Melanoma (AC 1) (CK 1)

Gamma-tocotrienol has broad therapeutic activity against human melanoma cells.

Pubmed Data : Nutr Cancer. 2009;61(3):357-66. PMID: [19373609](#)

Article Published Date : Jan 01, 2009

Authors : Piek Ngoh Chang, Wei Ney Yap, Davy Tak Wing Lee, M T Ling, Y C Wong, Yee Leng Yap

Study Type : In Vitro Study

Additional Links

Substances : Tocotrienol: Gamma : CK(25) : AC(12) , Tocotrienols : CK(23) : AC(16) , Vitamin E: Gamma-tocotrienol : CK(43) : AC(12)

Diseases : Malignant Melanoma : CK(189) : AC(8) , Melanoma : CK(271) : AC(142) , Melanoma: Metastatic : CK(21) : AC(13)

Additional Keywords : Drug-Plant-Vitamin Synergies : CK(965) : AC(266)

Melanoma: Metastatic (AC 1) (CK 1)

Gamma-tocotrienol has broad therapeutic activity against human melanoma cells.

Pubmed Data : Nutr Cancer. 2009;61(3):357-66. PMID: [19373609](#)

Article Published Date : Jan 01, 2009

Authors : Piek Ngoh Chang, Wei Ney Yap, Davy Tak Wing Lee, M T Ling, Y C Wong, Yee Leng Yap

Study Type : In Vitro Study

Additional Links

Substances : Tocotrienol: Gamma : CK(25) : AC(12) , Tocotrienols : CK(23) : AC(16) , Vitamin E: Gamma-tocotrienol : CK(43) : AC(12)

Diseases : Malignant Melanoma : CK(189) : AC(8) , Melanoma : CK(271) : AC(142) , Melanoma: Metastatic : CK(21) : AC(13)

Additional Keywords : Drug-Plant-Vitamin Synergies : CK(965) : AC(266)

Mesothelioma (AC 1) (CK 1)

A tocotrienol-rich fraction from rice bran enhances cisplatin-induced cytotoxicity in human mesothelioma cells.

Pubmed Data : Phytother Res. 2010 Feb 1. Epub 2010 Feb 1. PMID: [20127663](#)

Article Published Date : Feb 01, 2010

Authors : Keisuke Nakashima, Nantiga Virgona, Mio Miyazawa, Takashi Watanabe, Tomohiro Yano

Study Type : In Vitro Study

Additional Links

Substances : Rice Bran : CK(29) : AC(14) , Tocotrienols : CK(23) : AC(16)

Diseases : Chemotherapy-Induced Toxicity: Cisplatin : CK(274) : AC(76) , Mesothelioma : CK(30) : AC(10)

Pharmacological Actions : Chemosensitizer : CK(317) : AC(176)

Additional Keywords : Drug-Plant-Vitamin Synergies : CK(965) : AC(266)

Obesity (AC 1) (CK 1)

Dietary γ T3-enriched food would be a simple strategy to attenuate adiposity and to lessen obesity-mediated metabolic dysfunction.

Pubmed Data : Molecules. 2016 ;21(3). Epub 2016 Mar 11. PMID: [26978344](#)

Article Published Date : Dec 31, 2015

Authors : Lu Zhao, Xiefan Fang, Maurice R Marshall, Soonkyu Chung

Study Type : Review

Additional Links

Substances : Tocotrienol: Delta : CK(9) : AC(7) , Tocotrienols : CK(23) : AC(16) , Vitamin E: Gamma-tocotrienol : CK(43) : AC(12)

Diseases : Obesity : CK(2706) : AC(288)

Pharmacological Actions : Anti-Inflammatory Agents : CK(4010) : AC(1402)

Osteoporosis (AC 1) (CK 2)

Tocotrienol offers protection against free radical-induced damage of rat bone.

Pubmed Data : Clin Exp Pharmacol Physiol. 2005 Sep;32(9):761-70. PMID: [16173934](#)

Article Published Date : Sep 01, 2005

Authors : N S Ahmad, B A K Khalid, D A Luke, S Ima Nirwana

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16) , Vitamin E : CK(1618) : AC(283)

Diseases : Osteoporosis : CK(1237) : AC(221)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Interleukin-6 Downregulation : CK(928) : AC(141)

Oxidative Stress (AC 2) (CK 4)

A tocotrienol rich fraction of palm oil protects against chemically-induced kidney damage.

Pubmed Data : Chem Biol Interact. 2010 Jul 30;186(2):228-38. Epub 2010 Apr 28. PMID: [20433818](#)

Article Published Date : Jul 30, 2010

Authors : Mohd Rashid Khan, Shabeena Siddiqui, Kehkashan Parveen, Saleem Javed, Sandhya Diwakar, Waseem A Siddiqui

Study Type : Animal Study

Additional Links

Substances : Palm Oil : CK(28) : AC(16) , Tocotrienols : CK(23) : AC(16)

Diseases : Kidney Damage : CK(144) : AC(42) , Oxidative Stress : CK(3677) : AC(1321)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Renoprotective : CK(222) : AC(106)

Tocotrienol rich fractions of palm oil and rice bran oil protect against kidney damage associated with high blood sugar in type 1 diabetes.

Pubmed Data : Chem Biol Interact. 2010 Dec 5;188(3):651-8. Epub 2010 Sep 28. PMID: [20816776](#)

Article Published Date : Dec 05, 2010

Authors : Shabeena Siddiqui, Mohd Rashid Khan, Waseem A Siddiqui

Study Type : Animal Study

Additional Links

Substances : Palm Oil : CK(28) : AC(16) , Rice Bran : CK(29) : AC(14) , Tocotrienols : CK(23) : AC(16)

Diseases : Diabetes Mellitus: Type 1: Prevention : CK(240) : AC(36) , Oxidative Stress : CK(3677) : AC(1321)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Hypoglycemic Agents : CK(1190) : AC(268) , Renoprotective : CK(222) : AC(106)

Prostate Cancer (AC 1) (CK 2)

Mixed tocotrienols inhibit prostate carcinogenesis in mice.

Pubmed Data : Nutr Cancer. 2010 Aug;62(6):789-94. PMID: [20661828](#)

Article Published Date : Aug 01, 2010

Authors : Avantika Barve, Tin Oo Khor, Kenneth Reuhl, Bandaru Reddy, Harold Newmark, Ah-Ng Kong

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16)

Diseases : Prostate Cancer : CK(1342) : AC(311)

Pharmacological Actions : Anticarcinogenic Agents : CK(978) : AC(282) , Apoptotic : CK(2582) : AC(1717) , Cell cycle arrest : CK(670) : AC(358)

Category : Pharmacological Actions

Anti-Inflammatory Agents (AC 2) (CK 2)

Dietary γ T3-enriched food would be a simple strategy to attenuate adiposity and to lessen obesity-mediated metabolic dysfunction.

Pubmed Data : Molecules. 2016 ;21(3). Epub 2016 Mar 11. PMID: [26978344](#)

Article Published Date : Dec 31, 2015

Authors : Lu Zhao, Xiefan Fang, Maurice R Marshall, Soonkyu Chung

Study Type : Review

Additional Links

Substances : Tocotrienol: Delta : CK(9) : AC(7) , Tocotrienols : CK(23) : AC(16) , Vitamin E: Gamma-tocotrienol : CK(43) : AC(12)

Diseases : Obesity : CK(2706) : AC(288)

Pharmacological Actions : Anti-Inflammatory Agents : CK(4010) : AC(1402)

The anti-inflammatory effect of unsaturated tocotrienols could be highly promising in the regulation of tumor microenvironments.

Pubmed Data : Biofactors. 2016 Mar 7. Epub 2016 Mar 7. PMID: [26948691](#)

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Authors : Leanne De Silva, Lay Hong Chuah, Puvaneswari Meganathan, Ju-Yen Fu

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Additional Links

Substances : Tocotrienols : CK(23) : AC(16) , Vitamin E : CK(1618) : AC(283)

Diseases : Cancer Metastasis : CK(285) : AC(145)

Pharmacological Actions : Anti-Inflammatory Agents : CK(4010) : AC(1402) , Anti-metastatic : CK(397) : AC(127)

Additional Keywords : Anti-metastatic : CK(397) : AC(127)

Anti-metastatic (AC 1) (CK 1)

The anti-inflammatory effect of unsaturated tocotrienols could be highly promising in the regulation of tumor microenvironments.

Pubmed Data : Biofactors. 2016 Mar 7. Epub 2016 Mar 7. PMID: [26948691](#)

Article Published Date : Mar 06, 2016

Authors : Leanne De Silva, Lay Hong Chuah, Puvaneswari Meganathan, Ju-Yen Fu

Study Type : Review

Additional Links

Substances : Tocotrienols : CK(23) : AC(16) , Vitamin E : CK(1618) : AC(283)

Diseases : Cancer Metastasis : CK(285) : AC(145)

Pharmacological Actions : Anti-Inflammatory Agents : CK(4010) : AC(1402) , Anti-metastatic : CK(397) : AC(127)

Additional Keywords : Anti-metastatic : CK(397) : AC(127)

Anticarcinogenic Agents (AC 1) (CK 2)

Mixed tocotrienols inhibit prostate carcinogenesis in mice.

Pubmed Data : Nutr Cancer. 2010 Aug;62(6):789-94. PMID: [20661828](#)

Article Published Date : Aug 01, 2010

Authors : Avantika Barve, Tin Oo Khor, Kenneth Reuhl, Bandaru Reddy, Harold Newmark, Ah-Ng Kong

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16)

Diseases : Prostate Cancer : CK(1342) : AC(311)

Pharmacological Actions : Anticarcinogenic Agents : CK(978) : AC(282) , Apoptotic : CK(2582) : AC(1717) , Cell cycle arrest : CK(670) : AC(358)

Antioxidants (AC 6) (CK 12)

A tocotrienol rich fraction of palm oil protects against chemically-induced kidney damage.

Pubmed Data : Chem Biol Interact. 2010 Jul 30;186(2):228-38. Epub 2010 Apr 28. PMID: [20433818](#)

Article Published Date : Jul 30, 2010

Authors : Mohd Rashid Khan, Shabeena Siddiqui, Kehkashan Parveen, Saleem Javed, Sandhya

Diwakar, Waseem A Siddiqui

Study Type : Animal Study

Additional Links

Substances : Palm Oil : CK(28) : AC(16) , Tocotrienols : CK(23) : AC(16)

Diseases : Kidney Damage : CK(144) : AC(42) , Oxidative Stress : CK(3677) : AC(1321)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Renoprotective : CK(222) : AC(106)

Tocotrienol offers protection against free radical-induced damage of rat bone.

Pubmed Data : Clin Exp Pharmacol Physiol. 2005 Sep;32(9):761-70. PMID: [16173934](#)

Article Published Date : Sep 01, 2005

Authors : N S Ahmad, B A K Khalid, D A Luke, S Ima Nirwana

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16) , Vitamin E : CK(1618) : AC(283)

Diseases : Osteoporosis : CK(1237) : AC(221)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Interleukin-6 Downregulation : CK(928) : AC(141)

Tocotrienol rich fractions of palm oil and rice bran oil protect against kidney damage associated with high blood sugar in type 1 diabetes.

Pubmed Data : Chem Biol Interact. 2010 Dec 5;188(3):651-8. Epub 2010 Sep 28. PMID: [20816776](#)

Article Published Date : Dec 05, 2010

Authors : Shabeena Siddiqui, Mohd Rashid Khan, Waseem A Siddiqui

Study Type : Animal Study

Additional Links

Substances : Palm Oil : CK(28) : AC(16) , Rice Bran : CK(29) : AC(14) , Tocotrienols : CK(23) : AC(16)

Diseases : Diabetes Mellitus: Type 1: Prevention : CK(240) : AC(36) , Oxidative Stress : CK(3677) : AC(1321)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Hypoglycemic Agents : CK(1190) : AC(268) , Renoprotective : CK(222) : AC(106)

Tocotrienol-rich fraction and tocopherol prevent aspirin-induced gastric lesions.

Pubmed Data : Asia Pac J Clin Nutr. 2002;11(4):309-13. PMID: [12495264](#)

Article Published Date : Jan 01, 2002

Authors : M I Nafeeza, A M Fauzee, J Kamsiah, M T Gapor

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16) , Vitamin E : CK(1618) : AC(283)

Diseases : Aspirin-Induced Toxicity : CK(87) : AC(26), Gastric Ulcer : CK(250) : AC(96) , Lipid Peroxidation : CK(590) : AC(144)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Gastroprotective : CK(117) : AC(56) , Malondialdehyde Down-regulation : CK(319) : AC(60)

Tocotrienols are more effective than d-alpha tocopherol in protecting the bone from free radical damage.

Pubmed Data : N Engl J Med. 2005 Mar 31;352(13):1293-304. Epub 2005 Mar 7. PMID: [18598299](#)

Article Published Date : Mar 31, 2005

Authors : Sandra Maniam, Norazlina Mohamed, Ahmad Nazrun Shuid, Ima Nirwana Soelaiman

Study Type : Animal Study

Additional Links

Substances : Palm Tree : CK(8) : AC(4) , Tocotrienols : CK(23) : AC(16)

Diseases : Bone Diseases : CK(15) : AC(4)

Pharmacological Actions : Antioxidants : CK(6873) : AC(2521)

Tocotrienols inhibit hepatocarcinogenesis induced by 2-acetylaminofluorene in rats.

Pubmed Data : Am J Clin Nutr. 1991 Apr ;53(4 Suppl):1076S-1081S. PMID: [1672785](#)

Article Published Date : Apr 01, 1991

Authors : W Z Ngah, Z Jarien, M M San, A Marzuki, G M Top, N A Shamaan, K A Kadir

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(25) : AC(19)

Diseases : Liver Cancer : CK(1166) : AC(427)

Pharmacological Actions : Antioxidants : CK(6886) : AC(2521) , Chemopreventive : CK(2626) : AC(740)

Antiproliferative (AC 2) (CK 2)

Tocotrienols inhibit growth and induce programmed cell death in human cervical cancer cells.

Pubmed Data : Integr Cancer Ther. 2010 Feb 11. Epub 2010 Feb 11. PMID: [20150225](#)

Article Published Date : Feb 11, 2010

Authors : Shu-Jing Wu, Lean-Teik Ng

Study Type : In Vitro Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16)

Diseases : Cervical Cancer : CK(337) : AC(137)

Pharmacological Actions : Antiproliferative : CK(2321) : AC(1573), Apoptotic : CK(2781) : AC(1944), Interleukin-6 upregulation : CK(26) : AC(7)

[6]-gingerol and epigallocatechin gallate (EGCG) synergistically induced apoptosis and inhibits the proliferation 1321N1 and LN18 cells.

Pubmed Data : Molecules. 2014 ;19(9):14528-41. Epub 2014 Sep 12. PMID: [25221872](#)

Article Published Date : Dec 31, 2013

Authors : Amirah Abdul Rahman, Suzana Makpol, Rahman Jamal, Roslan Harun, Norfilza Mokhtar, Wan Zurinah Wan Ngah

Study Type : In Vitro Study

Additional Links

Substances : EGCG (Epigallocatechin gallate) : CK(511) : AC(269) , Gingerol : CK(27) : AC(2), Tocotrienols : CK(25) : AC(19)

Diseases : Glioma : CK(168) : AC(79)

Pharmacological Actions : Antiproliferative : CK(2321) : AC(1573), Apoptotic : CK(2781) : AC(1944)

Additional Keywords : Natural Substance/Drug Synergy : CK(172) : AC(48)

Apoptotic (AC 4) (CK 5)

Mixed tocotrienols inhibit prostate carcinogenesis in mice.

Pubmed Data : Nutr Cancer. 2010 Aug;62(6):789-94. PMID: [20661828](#)

Article Published Date : Aug 01, 2010

Authors : Avantika Barve, Tin Oo Khor, Kenneth Reuhl, Bandaru Reddy, Harold Newmark, Ah-Ng Kong

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16)

Diseases : Prostate Cancer : CK(1342) : AC(311)

Pharmacological Actions : Anticarcinogenic Agents : CK(978) : AC(282) , Apoptotic : CK(2582) :

Tocotrienols induce programmed cell death in breast cancer cell lines.

Pubmed Data : Breast Cancer Res Treat. 2010 Feb 16. Epub 2010 Feb 16. PMID: [20157774](#)

Article Published Date : Feb 16, 2010

Authors : Sook Kyung Park, Bob G Sanders, Kimberly Kline

Study Type : In Vitro Study

Additional Links

Substances : Tocotrienols : CK(25) : AC(19)

Diseases : Breast Cancer : CK(3393) : AC(1003)

Pharmacological Actions : Apoptotic : CK(2781) : AC(1944)

Tocotrienols inhibit growth and induce programmed cell death in human cervical cancer cells.

Pubmed Data : Integr Cancer Ther. 2010 Feb 11. Epub 2010 Feb 11. PMID: [20150225](#)

Article Published Date : Feb 11, 2010

Authors : Shu-Jing Wu, Lean-Teik Ng

Study Type : In Vitro Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16)

Diseases : Cervical Cancer : CK(337) : AC(137)

Pharmacological Actions : Antiproliferative : CK(2321) : AC(1573), Apoptotic : CK(2781) : AC(1944), Interleukin-6 upregulation : CK(26) : AC(7)

[6]-gingerol and epigallocatechin gallate (EGCG) synergistically induced apoptosis and inhibits the proliferation 1321N1 and LN18 cells.

Pubmed Data : Molecules. 2014 ;19(9):14528-41. Epub 2014 Sep 12. PMID: [25221872](#)

Article Published Date : Dec 31, 2013

Authors : Amirah Abdul Rahman, Suzana Makpol, Rahman Jamal, Roslan Harun, Norfilza Mokhtar, Wan Zurinah Wan Ngah

Study Type : In Vitro Study

Additional Links

Substances : EGCG (Epigallocatechin gallate) : CK(511) : AC(269) , Gingerol : CK(27) : AC(2), Tocotrienols : CK(25) : AC(19)

Diseases : Glioma : CK(168) : AC(79)

Pharmacological Actions : Antiproliferative : CK(2321) : AC(1573), Apoptotic : CK(2781) : AC(1944)

Additional Keywords : Natural Substance/Drug Synergy : CK(172) : AC(48)

Cell cycle arrest (AC 1) (CK 2)

Mixed tocotrienols inhibit prostate carcinogenesis in mice.

Pubmed Data : Nutr Cancer. 2010 Aug;62(6):789-94. PMID: [20661828](#)

Article Published Date : Aug 01, 2010

Authors : Avantika Barve, Tin Oo Khor, Kenneth Reuhl, Bandaru Reddy, Harold Newmark, Ah-Ng Kong

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16)

Diseases : Prostate Cancer : CK(1342) : AC(311)

Pharmacological Actions : Anticarcinogenic Agents : CK(978) : AC(282) , Apoptotic : CK(2582) : AC(1717), Cell cycle arrest : CK(670) : AC(358)

Chemopreventive (AC 1) (CK 2)

Tocotrienols inhibit hepatocarcinogenesis induced by 2-acetylaminofluorene in rats.

Pubmed Data : Am J Clin Nutr. 1991 Apr ;53(4 Suppl):1076S-1081S. PMID: [1672785](#)

Article Published Date : Apr 01, 1991

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Diseases : Liver Cancer : CK(1166) : AC(427)

Pharmacological Actions : Antioxidants : CK(6886) : AC(2521), Chemopreventive : CK(2626) : AC(740)

Chemosensitizer (AC 1) (CK 1)

A tocotrienol-rich fraction from rice bran enhances cisplatin-induced cytotoxicity in human mesothelioma cells.

Pubmed Data : Phytother Res. 2010 Feb 1. Epub 2010 Feb 1. PMID: [20127663](#)

Article Published Date : Feb 01, 2010

Authors : Keisuke Nakashima, Nantiga Virgona, Mio Miyazawa, Takashi Watanabe, Tomohiro Yano

Study Type : In Vitro Study

Additional Links

Substances : Rice Bran : CK(29) : AC(14) , Tocotrienols : CK(23) : AC(16)

Diseases : Chemotherapy-Induced Toxicity: Cisplatin : CK(274) : AC(76) , Mesothelioma : CK(30) : AC(10)

Pharmacological Actions : Chemosensitizer : CK(317) : AC(176)

Additional Keywords : Drug-Plant-Vitamin Synergies : CK(965) : AC(266)

Gastroprotective (AC 1) (CK 2)

Tocotrienol-rich fraction and tocopherol prevent aspirin-induced gastric lesions.

Pubmed Data : Asia Pac J Clin Nutr. 2002;11(4):309-13. PMID: [12495264](#)

Article Published Date : Jan 01, 2002

Authors : M I Nafeeza, A M Fauzee, J Kamsiah, M T Gapor

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16) , Vitamin E : CK(1618) : AC(283)

Diseases : Aspirin-Induced Toxicity : CK(87) : AC(26) , Gastric Ulcer : CK(250) : AC(96) , Lipid Peroxidation : CK(590) : AC(144)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Gastroprotective : CK(117) : AC(56) , Malondialdehyde Down-regulation : CK(319) : AC(60)

Hypoglycemic Agents (AC 1) (CK 2)

Tocotrienol rich fractions of palm oil and rice bran oil protect against kidney damage associated with high blood sugar in type 1 diabetes.

Pubmed Data : Chem Biol Interact. 2010 Dec 5;188(3):651-8. Epub 2010 Sep 28. PMID: [20816776](#)

Article Published Date : Dec 05, 2010

Authors : Shabeena Siddiqui, Mohd Rashid Khan, Waseem A Siddiqui

Study Type : Animal Study

Additional Links

Substances : Palm Oil : CK(28) : AC(16) , Rice Bran : CK(29) : AC(14) , Tocotrienols : CK(23) : AC(16)

Diseases : Diabetes Mellitus: Type 1: Prevention : CK(240) : AC(36) , Oxidative Stress : CK(3677) : AC(1321)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Hypoglycemic Agents : CK(1190) : AC(268) , Renoprotective : CK(222) : AC(106)

Interleukin-6 Downregulation (AC 1) (CK 2)

Tocotrienol offers protection against free radical-induced damage of rat bone.

Pubmed Data : Clin Exp Pharmacol Physiol. 2005 Sep;32(9):761-70. PMID: [16173934](#)

Article Published Date : Sep 01, 2005

Authors : N S Ahmad, B A K Khalid, D A Luke, S Ima Nirwana

Study Type : Animal Study

Additional Links

Substances : Tocotrienols : CK(23) : AC(16) , Vitamin E : CK(1618) : AC(283)

Diseases : Osteoporosis : CK(1237) : AC(221)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Interleukin-6 Downregulation : CK(928) : AC(141)

Interleukin-6 upregulation (AC 1) (CK 1)

Tocotrienols inhibit growth and induce programmed cell death in human cervical cancer cells.

Pubmed Data : Integr Cancer Ther. 2010 Feb 11. Epub 2010 Feb 11. PMID: [20150225](#)

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Substances : Tocotrienols : CK(23) : AC(16)

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Pharmacological Actions : Antiproliferative : CK(2321) : AC(1573), Apoptotic : CK(2781) : AC(1944), Interleukin-6 upregulation : CK(26) : AC(7)

Malondialdehyde Down-regulation (AC 1) (CK 2)

Tocotrienol-rich fraction and tocopherol prevent aspirin-induced gastric lesions.

Pubmed Data : Asia Pac J Clin Nutr. 2002;11(4):309-13. PMID: [12495264](#)

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Substances : Tocotrienols : CK(23) : AC(16), Vitamin E : CK(1618) : AC(283)

Diseases : Aspirin-Induced Toxicity : CK(87) : AC(26), Gastric Ulcer : CK(250) : AC(96), Lipid Peroxidation : CK(590) : AC(144)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004), Gastroprotective : CK(117) : AC(56), Malondialdehyde Down-regulation : CK(319) : AC(60)

Renoprotective (AC 2) (CK 4)

A tocotrienol rich fraction of palm oil protects against chemically-induced kidney damage.

Pubmed Data : Chem Biol Interact. 2010 Jul 30;186(2):228-38. Epub 2010 Apr 28. PMID: [20433818](#)

Article Published Date : Jul 30, 2010

Authors : Mohd Rashid Khan, Shabeena Siddiqui, Kehkashan Parveen, Saleem Javed, Sandhya Diwakar, Waseem A Siddiqui

Study Type : Animal Study

Additional Links

Substances : Palm Oil : CK(28) : AC(16) , Tocotrienols : CK(23) : AC(16)

Diseases : Kidney Damage : CK(144) : AC(42) , Oxidative Stress : CK(3677) : AC(1321)

Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Renoprotective : CK(222) : AC(106)

Tocotrienol rich fractions of palm oil and rice bran oil protect against kidney damage associated with high blood sugar in type 1 diabetes.

Pubmed Data : Chem Biol Interact. 2010 Dec 5;188(3):651-8. Epub 2010 Sep 28. PMID: [20816776](#)

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Pharmacological Actions : Antioxidants : CK(6711) : AC(2004) , Hypoglycemic Agents : CK(1190) : AC(268) , Renoprotective : CK(222) : AC(106)

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