Lipoxygenase Inhibitor Screening Assay Kit

Catalog # KA1329 Size 1 Kit

Applications

Result Data

Result Data

Inhibition of soybean 15-lipoxygenase by NDGA (IC_{50}= 9 uM).

Specification

Product Description	Lipoxygenase Inhibitor Screening Assay Kit is a measurement of detecting hydeoperoxides produced in the lipoxygenation reaction.
Regulation Status	For research use only (RUO)
Storage Instruction	Store the kit at -20°C temporarily. For best results, store the components as described in the protocol.
Note	Result Data Result Data Inhibition of soybean 15-lipoxygenase by NDGA (IC_{50}= 9 uM).

Applications

- Functional Study

Publication Reference

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- GC-MS profiling, biological activities and molecular docking of total sterol extracts from Pontederia crassipes (Lake Tana, Ethiopia).

  Widad Ben Bakrim, Amine Ezzariai, Ismail Mahdi, Fadoua Karouach, Nawal Merghoub, Mulugeta Kibret, Mohamed Hafidi, Lamfeddal Kouisni.

  Scientific Reports 2026 Mar; 16(1):14516.

  Application: IA, Plants, Total sterol extract (TSE) of Pontederia crassipes (Lake Tana, Ethiopia)

- Molecular mechanisms of 10-Butyl Ether Minocycline (BEM), a novel non-antibiotic tetracycline, as a potential treatment for inflammatory and neuroimmune-related disorders.

  Abdul Shaik, Praneetha Panthagani, Xiaobo Liu, Stephany Navarro-Turk, Jeremy Garza, Monica Aguilera, Jordan Sanchez, Kushal Gupta, Abdul Hamood, Ted Reid, Bruce Blough, Elliott Pauli, Jeremy Bailoo, Susan Bergeson

  bioRxiv 2025 Jun; 0.

- New Diaryl-1,2,4-triazolo[3,4- a]pyrimidine Hybrids as Selective COX-2/sEH Dual Inhibitors with Potent Analgesic/Anti-inflammatory and Cardioprotective Properties.

  Lamya H Al-Wahaibi, Mostafa H Abdel-Rahman, Khaled El-Adl, Bahaa G M Youssif, Stefan Bräse, Salah A Abdel-Aziz.

  ACS Omega. 2024 Jul 22;9(31):33494-33509. doi: 10.1021/acsomega.4c00870. eCollection 2024 Aug 6. 2024 Jul; 9(31):33494.

  Application: Qual, Others, Chemical compounds

- Anti-Inflammatory, Antidiabetic, and Antioxidant Properties of Extracts Prepared from Pinot Noir Grape Marc, Free and Incorporated in Porous Silica-Based Supports.

  Mihaela Deaconu, Anil Abduraman, Ana-Maria Brezoiu, Nada K Sedky, Simona Ioni??, Cristian Matei, Laila Ziko, Daniela Berger

  Molecules 2024 Jun; 29(13).

- Design and synthesis of novel indole and indazole-piperazine pyrimidine derivatives with anti-inflammatory and neuroprotective activities for ischemic stroke treatment.

  Hongwei Wang, Enjing Cui, Jiaming Li, Xiaodong Ma, Xueyang Jiang, Shuaishuai Du, Shihu Qian, Le D.

  European Journal of Medicinal Chemistry 2022 Nov; 241:114597.

  Application: Func, Chemicals

- Discovery of small molecule acting as multitarget inhibitor of colorectal cancer by simultaneous blocking of the key COX-2, 5-LOX and PIM-1 kinase enzymes.

  Mostafa M M El-Miligy, Ahmed K Al-Kubeisi, Saad R El-Zemity, Rasha A Nassra, Marwa M Abu-Serie, Aly A Hazzaa.

  Bioorganic Chemistry 2021 Oct; 115:105171.

  Application: Enzyme, Mouse, Colonocytes

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- Design, synthesis, biological evaluation and docking study of novel indole-2-amide as anti-inflammatory agents with dual inhibition of COX and 5-LOX.

  Huang Y, Zhang B, Li J, Liu H, Zhang Y, Yang Z, Liu W.

  European Journal of Medicinal Chemistry 2019 Jul; 180:41.

  Application: Func, Compounds

- Synthesis and biological evaluation of purine-pyrazole hybrids incorporating thiazole, thiazolidinone or rhodanine moiety as 15-LOX inhibitors endowed with anticancer and antioxidant potential.

  Afifi OS, Shaaban OG, Abd El Razik HA, Shams E-Dine SEA, Ashour FA, El-Tombary AA, Abu-Serie MM.

  Bioorganic Chemistry 2019 Jun; 87:821.

  Application: Func, Screening, Human, A-549, Caco-2, HepG2, MCF-7, PC-3 cells

- Synthesis, anti-inflammatory screening, molecular docking, and COX-1,2/-5-LOX inhibition profile of some novel quinoline derivatives.

  Chaaban I, Rizk OH, Ibrahim TM, Henen SS, El-Khawass EM, Bayad AE, El-Ashmawy IM, Nematalla HA.

  Bioorganic Chemistry 2018 Aug; 78:220.

  Application: Func, Quinoline compounds

- Chemical Composition and Biological Activities of Mono- and Heterofloral Bee Pollen of Different Geographical Origins.

  Araújo JS, Chambó ED, Costa MAPC, Cavalcante da Silva SMP, Lopes de Carvalho CA, M Estevinho L.

  Amino Acids 2017 Apr; 18(5):E921.

  Application: Func, IA, Bee pollen (pollen)

- Benzodioxole-Pyrazole Hybrids as Anti-Inflammatory and Analgesic Agents with COX-1,2/5-LOX Inhibition and Antioxidant Potential.

  Abd El Razik HA, Badr MH, Atta AH, Mouneir SM, Abu-Serie MM.

  Archiv Der Pharmazie 2017 Apr; 350(5).

  Application: Func, IA, Synthesized compounds

- New hybrid molecules combining benzothiophene or benzofuran with rhodanine as dual COX-1/2 and 5-LOX inhibitors: Synthesis, biological evaluation and docking study.

  Mostafa M M El-Miligy, Aly A Hazzaa, Hanan El-Messmary, Rasha A Nassra, Soad A M El-Hawash.

  Bioorganic Chemistry 2017 Mar; 72:102.

  Application: IA, N/A, compound

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- 9-Norbornyl-6-chloropurine (NCP) induces cell death through GSH depletion-associated ER stress and mitochondrial dysfunction.

  Plackova P, Sala M, Smidkova M, Dejmek M, Hrebabecky H, Nencka R, Thibaut HJ, Neyts J, Mertlikova-Kaiserova H.

  Free Radical Biology & Medicine 2016 Jun; 97:223.

  Application: Enzyme, Human, CCRF-CEM cell

- Inhibitory effect of lipoxygenase and DPPH radical scavening activity of fraxinus rhynchophylla.

  Man Kyu Huh, Kyung-Soon Cho, Sung-Jong Jeon.

  European Journal of Advanced Research in Biological and Life Sciences 2015 Jan; 3(3):10.

  Application: Func, Plant, Plant extracts, Recombinant proteins

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