

중앙대학교 대학원 카피킬러캠퍼스 표절 검사 결과 확인서

학 인

성 명

서 명

아이디	2020220141	표절률	11%
소속	대학원		
성명	자필로 기재하세요		

검사번호	00250062289	검사일자	2023.12.14 18:54
발급형태	☐ 기본보기 ☐ 요약보기 ☒ 상세보기	발급일자	2023.12.14 18:55
검사명	학술논문 검사		
문서명	Manuscript_Toxicological research 12.14_final.docx		
비고			

비교범위	[현재점부분서] [카피킬러 DB]
검사설정	표절기준 [6 어절], 인용/출처 표시문장 [제외], 법령/경전 포함문장 [제외], 목차/참고문헌 [제외]

검토 의견	
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분석 정보

표절률	전체문장	동일문장	의심문장	인용/출처	법령/경전
11%	164	1	29	2	0

비교 문서 정보

번호	표절률	출처정보	비고
1	6%	[카피킬러 DB] www.ncbi.nlm.nih.gov - 파일명 : Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage - PMC	
2	1%	[카피킬러 DB] www.ncbi.nlm.nih.gov - 파일명 : Oral administration of Jinan Red Ginseng and licorice extract ... - 저자 : Daram Yang, Hyuneui Jeong, Seung-Mi Hwang, Jong-Won Kim, Hee-Won Moon, Ye-Eun Lee, Hyo-Bin Oh, Chung-berm Park, Bumseok Kim - 발행 : January 2022	
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4	1%	[카피킬러 DB] www.ncbi.nlm.nih.gov - 파일명 : Protective Effects of Nintedanib against Polyhexamethylene ... - 발행 : www.ncbi.nlm.nih.gov	
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14	1%	[카피킬러 DB] www.mdpi.com - 파일명 : Ac2-26, an Annexin A1 Peptide, Attenuates Ischemia ... - MDPI
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검사 문서

문장표절률: 42%

Pulmonary toxicity assessment of polypropylene, polystyrene, and polyethylene microplastic fragments in mice. Isaac Kwabena Danso^{1,2}, Jong-Hwan Woo^{1,3}, Seung Hoon Baek^{1,2}, Kilsoo Kim⁴, 5, Kyuhong Lee^{1,2}, * ¹ Inhalation Toxicology Center for Airborne Risk Factor, Korea Institute of Toxicology, 30 Baehak1-gil, Jeongeup, Jeollabuk-do, 56212, Republic of Korea

문장표절률: 51%

² Department of Human and Environmental Toxicology, Korea National University of Science & Technology, Daejeon, 34113, Republic of Korea ³ Biosafety Research Institute and Laboratory of Pathology, College of Veterinary Medicine, Jeonbuk National University, Iksan-si, Jeollabuk do, Republic of Korea

문장표절률: 67%

⁴ Preclinical Research Center, Daegu-Gyeongbuk Medical Innovation Foundation, Daegu 41061, Republic of Korea ⁵ College of Veterinary Medicine, Kyungpook National University, 80 Dahakro, Buk-gu, Daegu 41566, Republic of Korea * Corresponding author.

문장표절률: 0%

E-mail addresses: khleekit@gmail.com (K. Lee) Tel: +82-63-570-8740, Fax: +82-63-570-8798 ABSTRACT Polypropylene (PP), polystyrene (PS), and polyethylene (PE) plastics are commonly used in household items such as electronic housings, food packaging, bottles, bags, toys, and roofing membranes.

비교 문서

[www.ncbi.nlm.nih.gov] Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage - PMC

Hwan Woo Hyeon Jin Seo ¹ Inhalation Toxicology Center for Airborne Risk Factor, Korea Institute of Toxicology, 30 Baehak1-gil, Jeongeup, Jeollabuk-do 56212 Republic of Korea Find articles by Hyeon Jin Seo Jun-Young Lee Inhalation Toxicology Center for Airborne Risk Factor, Korea Institute of Toxicology, 30 Baehak1-gil, Jeongeup, Jeollabuk-do 56212 Republic of Korea Find articles by Jun-Young by Bumseok Kim Kyuhong Lee Inhalation Toxicology Center for Airborne Risk Factor, Korea Institute of Toxicology, 30 Baehak1-gil, Jeongeup, Jeollabuk-do 56212 Republic of Korea ³ Department of Human and Environmental and License information PMC Disclaimer ¹ Inhalation Toxicology Center for Airborne Risk Factor, Korea Institute

[Copykiller] Effects of stabilizer magnesium nitrate on CMIT/MIT-induced respiratory toxicity

저자 : Song Mi-Kyung Baek Yong-Wook Kim Dong Im Yoon Sung-Hoon Lee Kyuhong
발행 : 2023

to this work. Kyuhong Lee *****@***** ¹ Inhalation Toxicology Center for Airborne Risk Factor, Korea Institute of Toxicology, 30 Baehak1-Gil, Jeongeup, Jeollabuk-Do

[www.ncbi.nlm.nih.gov] Oral administration of Jinan Red Ginseng and licorice extract ...

저자 : Daram Yang, Hyuneui Jeong, Seung-Mi Hwang, Jong-Won Kim, Hee-Won Moon, Ye-Eun Lee, Hyo-Bin Oh, Chung-berm Park, Bumseok Kim
발행 : January 2022

Bumseok Kim, * Daram Yang aBiosafety Research Institute and Laboratory of Pathology, College of Veterinary Medicine, Jeonbuk National University, Iksan-si, Jeollabuk do, Republic of Korea Find articles by Daram Yang Hyuneui Jeong aBiosafety Research Institute and Laboratory of Pathology, College of Veterinary Medicine, Jeonbuk National University, Iksan-si, Jeollabuk do, Republic of Korea Find articles by Hyuneui Jeong Hwang Jong-Won Kim aBiosafety Research Institute and Laboratory of Pathology, College of Veterinary Medicine, Jeonbuk National University, Iksan-si, Jeollabuk do, Republic of Korea Find articles by Jong-Won Kim Hee-Won Moon aBiosafety Research Institute and Laboratory of Pathology, College of Veterinary Medicine, Jeonbuk National University, Iksan-si, Jeollabuk do, Republic of Korea Find articles by Hee-Won

[www.ncbi.nlm.nih.gov] Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage - PMC

Kisoo Jeon Bumseok Kim ² Biosafety Research Institute and Laboratory of Pathology, College of Veterinary Medicine, Jeonbuk National University, Iksan-Si, Jeollabuk do Republic of Korea Find articles by Bumseok Kim 56212 Republic of Korea ² Biosafety Research Institute and Laboratory of Pathology, College of Veterinary Medicine, Jeonbuk National University, Iksan-Si, Jeollabuk do Republic of Korea ³ Department of Human and Environmental Toxicology

[www.ncbi.nlm.nih.gov] Discovery and Biological Evaluations of Halogenated 2,4-Diphenyl ...

발행 : www.ncbi.nlm.nih.gov

² New Drug Development Center Daegu-Gyeongbuk Medical Innovation Foundation Daegu 41061 Republic of Korea, ³ College of Pharmacy, Graduate of Korea, ⁴ Laboratory Animal Center Daegu-Gyeongbuk Medical Innovation Foundation Daegu 41061 Republic of Korea ⁵ College of Veterinary Medicine Kyungpook National University Daegu 41566 Republic of Korea

[Copykiller] Immunodysregulatory potentials of polyethylene or polytetrafluoroethylene microplastics to mice subacutely exposed via intragastric intubation

저자 : Jo JiHun Acharya Manju K C Pramod Bahadur Maharjan Anju Lee DaEun Gautam Ravi Kwon Jung-Taek Kim KilSoo Kim ChangYul Heo Yong Kim HyoungAh
발행 : 2023

Research, Incheon, Republic of Korea ⁴ Preclinical Research Center, Daegu-Gyeongbuk Medical Innovation Foundation, Daegu, Republic of Korea ⁵ College of Veterinary Medicine, Kyungpook National University, Daegu, Republic of Korea ⁶

문장표절률: 0%

The presence of inhalable microplastics in indoor air has become a topic of concern as many people spent extended periods of time indoors during the COVID-19 pandemic lockdown restrictions, however, the toxic effects on the respiratory system are not properly understood.

문장표절률: 0%

We examined the toxicity of PP, PS, and PE microplastic fragments in the pulmonary system of C57BL/6 mice. For 14 days, mice were intratracheally instilled 5 mg/kg PP, PS, and PE daily.

문장표절률: 30%

The number of inflammatory cells such as macrophages, neutrophils, and eosinophils in the bronchoalveolar lavage fluid (BALF) of PS-instilled mice was significantly higher than that in the vehicle control (VC).

[Copykiller] Design of drug crystals-based long-acting injectable systems to modulate pharmacokinetic profile and local inflammation reaction = 결정형 약물 기반 장기 지속형 주사제 설계를 통한 약물동태와 국소 염증 조절 연구

저자 : Myoung Jin Ho Design of drug crystals-based long-acting injectable systems to modulate pharmacokinetic profile and local inflammation reaction = 결정형 약물 기반 장기 지속형 주사제 설계를 통한 약물동태와 국소 염증 조절 연구

E stained tissues. The total number of inflammatory cells such as macrophages, neutrophils, and monocytes along with the inflammatory

문장표절률: 0%

The levels of inflammatory cytokines and chemokines in BALF of PS-instilled mice increased compared to the VC. However, the inflammatory responses in PP- and PE-stimulated mice were not significantly different from those in the VC group.

문장표절률: 0%

We observed elevated protein levels of toll-like receptor (TLR) 2 in the lung tissue of PP-instilled mice and TLR4 in the lung tissue of PS-instilled mice compared with those to the VC, while TLR1, TLR5, and TLR6 protein levels remained unchanged.

문장표절률: 0%

Phosphorylation of nuclear factor kappa B (NF- κ B) and I κ B- α increased significantly in PS-instilled mice compared with that in VC.

문장표절률: 52%

Furthermore, Nucleotide-binding oligomerization domain-like receptor family pyrin domain-containing 3 (NLRP3) inflammasome components including NLRP3, apoptosis-associated speck-like protein containing a caspase recruitment domain (ASC), and Caspase-1 in the lung tissue of PS-instilled mice increased compared with that in the VC, but not in PP- and PE-instilled mice.

[Copykiller] Hepatocytes infected with hepatitis C virus change immunological features in the liver microenvironment

저자 : Soo-Jeung Park, Young S. Hahn Hepatocytes infected with hepatitis C virus change immunological features in the liver microenvironment

activation of inflammasomes such as nucleotide-binding oligomerization domain-like receptor family pyrin domain containing 3 (NLRP3), apoptosis-associated speck-like protein containing a caspase recruitment domain (ASC), caspase-1, and release of

[www.ncbi.nlm.nih.gov] Protective Effects of Nintedanib against Polyhexamethylene ...

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is composed of NLRP3, an apoptosis-associated speck-like protein containing a caspase recruitment domain (ASC), and cysteine protease caspase-1 [22]

문장표절률: 0%

These results suggest that PS microplastic fragment stimulation induces pulmonary inflammation due to NF- κ B and NLRP3 inflammasome activation by the TLR4 pathway.

문장표절률: 0%

Keywords Microplastic; Fragment; TLR4; NF- κ B; NLRP3 inflammasome. 1. Introduction Microplastics have become ubiquitous in the environment owing to the increasing production and consumption of plastic products, coupled with inadequate disposal and slow biodegradation [1-3].

문장표절률: 0%

Microplastics exist primarily as purposefully manufactured micro-sized products, or secondary microplastics formed from the disintegration of plastic debris exposed to ultraviolet radiation, mechanical stress, and biological actions in the environment [4].

문장표절률: 0%

As a result, the occurrence of microplastics in the environment is diverse, consisting of a wide range of polymer types such as polypropylene (PP), polystyrene (PS), and polyethylene (PE), with different sizes and shapes including beads, fragments, and fibres [2, 5].

문장표절률: 0%

Microplastic pollution has been previously discussed as a marine environmental issue. However, in recent times, its occurrence in both indoor and outdoor air environments has been confirmed, with reports suggesting that inhalation is a more dominant route of exposure [6–9].

문장표절률: 0%

Although research on airborne microplastic exposure has primarily focused on outdoor environments, a limited number of studies have revealed that indoor microplastic concentrations are notably elevated.

문장표절률: 0%

These elevated indoor microplastic levels may exert adverse effects on human health [10–12]. Furthermore, the COVID–19 pandemic and associated lockdown regulations have led to prolonged indoor periods for individuals, underscoring the significance of this study.

문장표절률: 0%

Despite the potential risks involved, our understanding of the pulmonary toxicity of inhaled microplastics in humans remains limited.

문장표절률: 0%

In recent studies, the fragment and fibre shapes in atmospheric microplastics were observed to be the most predominant, and it has also been reported that humans are exposed to an average of 55,000 particles annually via the inhalation route [13–15].

문장표절률: 0%

In addition, microplastics of 12 polymer types including PP, PS, and PE were detected in the lung tissue of humans, with most of them being fragments (43%) and fibre (49%) [16].

문장표절률: 0%

Microplastic particles have also been observed in the sputum of patients with various respiratory diseases [17]. Previous studies have reported that some occupational workers with long-term exposure to microplastics developed pulmonary diseases including lung cancer and asthma [2, 3, 18–21]. Although some studies have highlighted the potential health risks associated with

문장표절률: 0%

the inhalation of microplastics, our understanding of the toxicity mechanisms of different types of microplastics within the respiratory system remains limited.

문장표절률: 26%

Toll-like receptors (TLRs) are pattern recognition receptors (PRRs) that detect both exogenous pathogen-associated molecular patterns (PAMPs) and endogenous danger-associated molecular patterns (DAMPs), thereby triggering host defense responses and inflammations [22–24].

문장표절률: 0%

TLRs can activate multiple intracellular signals, including the nuclear factor κ B (NF- κ B) pathway, which plays a major role in regulating inflammatory responses [25].

문장표절률: 0%

Recent research has indicated that NF- κ B serves as an integral component of the initiation signal required for stimulation of the NLRP3 inflammasome, which subsequently triggers the activation of Caspase-1 and consequent release of interleukin (IL)-1 β [26, 27].

[patents.google.com] Conjugated TLR7 and/or TLR8 and TLR2 polycationic agonists

발행 : 2013-02-22, 2014-08-27

subject. BACKGROUND OF THE INVENTION Toll-like receptors (TLRs) are pattern recognition receptors (PRRs) expressed by diverse cell types

문장표절률: 0%

TLR-mediated inflammation is implicated in pulmonary diseases including asthma, pulmonary fibrosis, and chronic obstructive pulmonary disease (COPD) [28–32].

문장표절률: 0%

Recent research has reported that air pollution agents such as particulate matter, activated TLR2- and TLR4-mediated lung inflammations [33–35], however, the mechanism of pathogenesis for lung inflammation due to microplastic exposure is still unclear.

문장표절률: 0%

This study investigated inflammatory responses including inflammatory cytokine and chemokine levels, cellular changes, and histopathological analysis of bronchoalveolar lavage fluid (BALF) and lung tissue of PP-, PS-, and PE-instilled mice.

문장표절률: 0%

Additionally, we examined the mechanism of toxicity of TLR-mediated lung inflammation in the lung tissues of microplastic-instilled mice.

문장표절률: 0%

2. Material and methods 2.1 PP, PS, and PE microplastic fragments PP beads (PropylTex® 50, Micro Powders Inc., NewYork, NY, USA) and PE beads (5 mm) were purchased to prepare PP and PE microplastic fragments of size approximately < 20 μm .

문장표절률: 0%

PP and PE beads were frozen at -78°C and subsequently ground into a powder using a blade-shaped homogenizer,

문장표절률: 0%

a process lasting approximately 4 h. PP and PE beads were frozen at -78°C and subsequently homogenized to a powder using a blade-shaped device; this process lasted approximately 4 h.

문장표절률: 0%

The resulting powder was passed through a 50- μm mesh and washed five times with ethanol. The samples were then dried at 50°C for 48 h.

문장표절률: 0%

To produce PP and PE microplastics with particlesizes of approximately <20 μm , microplastics were dispersed in ethanol and subjected to high-pressure homogenization (four passes at 600 bar).

문장표절률: 0%

Subsequently, the resulting particles were passed through 15- μm mesh filters, subjected to five ethanol washes, and then dried for 48 h at 50°C .

문장표절률: 0%

PS microplastic fragments were supplied by the Korea Testing and Research Institute. To prepare microplastic fragments for experimentation, PP, PS, and PE microplastics were dispersed in a solution consisting of 1% DMSO in saline.

문장표절률: 0%

The resulting solution was sonicated in a water bath for 30 min. Field-Emission Scanning Electron Microscopy (FE-SEM) (S-4800, Hitachi, Japan) analysis was performed to determine the shape and size of the three microplastic fragments.

문장표절률: 0%

Zeta potentials (ELSZ-2000, Otsuka, Japan) were measured in triplicate to determine their respective surface charges.

문장표절률: 20%

2.2 Animals and experimental design Male C57BL/6 mice of seven weeks old were procured from Orient Bio Inc. (Seongnam, Korea) and housed in a controlled environment at constant temperature and relative humidity of $22 \pm 3^\circ\text{C}$ and $50 \pm 20\%$ respectively, and a 12 h light/dark cycle.

[Copykiller] Comparative toxicity of polyhexamethylene guanidine phosphate in three strains of rats

저자 : Woo Jong-Hwan Kim Ki Cheon Kim Hyeon-Young Kim In-Hyeon Kim Sung-Hwan Lee Kyuhong
발행 : 2022

Wistar rats were purchased from Orient Bio Inc. (Seongnam, Korea) and housed in a temperature-controlled environment $22 \pm$

문장표절률: 0%

Throughout the experiment, mice were provided with standard experimental rodent pellets (PMI Nutrition International, Richmond, IN, USA) and UV-sterilized and filtered tap water ad libitum.

문장표절률: 71%

Experimental procedures were carried out with approval from the Institutional Animal Care and Use Committee at the Korea Institute of Toxicology (IACUC #2108-0023).

[www.ncbi.nlm.nih.gov] Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage - PMC

experimental procedures were approved by the Institutional Animal Care and Use Committee at the Korea Institute of Toxicology (IACUC #2108-0003). The mice in the

[www.copykiller.com] [2023-04-07] Role of NDRG3 in regulating CDK1 activation and tumor growth in ovarian cancer.docx

발행 : 인하대학교, 2023.04.

model All animal experiments were approved from the Institutional Animal Care and Use Committee (IACUC) at Inha University in

문장표절률: 0%

In the PP, PS, and PE experimental groups, mice were subjected to intratracheal instillation of 5 mg/kg of PP, PS, and PE suspended in a 50 μ l saline solution over the 2 weeks, employing an automatic instillator [36].

문장표절률: 0%

Similarly, mice in the vehicle control (VC) group were also intratracheally instilled with saline. Mice of all groups were sacrificed on day 15.

문장표절률: 0%

2.3 Bronchoalveolar lavage fluid (BALF) analysis At 24 h after the administration of the three microplastics (PP, PS, and PE), the mice were anesthetized using isoflurane and euthanized by exsanguination.

문장표절률: 0%

The left lung was ligated and the trachea cannulated. Subsequently, the right lung was lavaged three times, with 0.7 mL of phosphate-buffered saline (PBS).

문장표절률: 43%

Total cells of the collected BALF were counted with the help of a NucleoCounter (NC-250; ChemoMetec, Gydevang, Denmark). BALF cell smears were prepared for differential cell counts using Cytospin (Thermo Fisher Scientific) and stained with Diff-Quik solution (Dade Diagnostics, Aguada, Puerto, USA). A total of 200 cells were counted per slide.

[www.ncbi.nlm.nih.gov] Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage - PMC

types, BAL cells were prepared using Cytospin (Thermo Fisher Scientific) and stained with Diff-Quik solution (Dade Diagnostics, Aguada, Puerto, USA). A total of 200 cells were counted on each slide. Measurement of

[Copykiller] Effects of stabilizer magnesium nitrate on CMIT/MIT-induced respiratory toxicity

저자 : Song Mi-Kyung Baek Yong-Wook Kim Dong Im Yoon Sung-Hoon Lee Kyuhong
발행 : 2023

Cytospin (Thermo Fisher Scientific Inc) and stained with Diff-Quik solution (Dade Diagnostics, Aguada, Puerto Rico). The different cell types

문장표절률: 36%

2.4 Histopathological analysis The left lung tissue of mice were fixed in 10% neutral-buffered formalin. The tissuespecimens were dehydrated and embedded in para

[www.copykiller.com] 윤석영 2020년 8월 박사학위논문초본.docx

발행 : 인하대학교, 2020.05.

lung parenchyma, the left lungs of mice were fixed in 10% neutral buffered formalin and embedded in paraffin. Sections

[www.copykiller.com] 윤석영 박사1.docx

발행 : 인하대학교, 2019.11.

lung parenchyma, the left lungs of mice were fixed in 10% neutral buffered formalin and embedded in paraffin. Sections

문장표절률: 89%

Subsequently, sections (4- μ m-thick) were stained with hematoxylin and eosin (H&E). All fields per section from each animal were analyzed using a Leica DM2500 microscope (Leica Instruments, Wetzlar, Germany) at 200x and 400x magnifications.

[Copykiller] Comparative toxicity of polyhexamethylene guanidine phosphate in three strains of rats

저자 : Woo Jong-Hwan Kim Ki Cheon Kim Hyeon-Young Kim In-Hyeon Kim Sung-Hwan Lee Kyuhong

발행 : 2022

s tri- chrome (MT)-stain. All fields per section from each animal were analyzed using a Leica DM2500 microscope (Leica instruments, Wetzlar, Germany) at 200x magnification. The degree of lung

[www.ncbi.nlm.nih.gov] Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage - PMC

E). All samples were analysed using a Leica DM2500 microscope (Leica Instruments, Wetzlar, Germany) at 200x and 400x magnifications. The degree of lung injury

문장표절률: 61%

2.5 Inflammatory cytokine and chemokine levels in BALF The levels of IL-1 β , IL-6, monocyte chemoattractant protein-1 (MCP-1), macrophage inflammatory protein (MIP)-1 α , MIP-2, and C-X-C motif chemokine ligand 1 (CXCL1/KC) in BALF were measured using commercial ELISA kits (R&D System) according to the manufacturer's instructions.

[Copykiller] 활성화된 대식세포주에서 Sabinene의 항염증 효능 평가 = Anti-inflammatory effect of Sabinene in LPS-induced RAW264.7cell

저자 : 서승이

2(COX-2),TNF- α ,IL-1 β , IL-6,Monocyte chemoattractant protein-1 (MCP-1/CCL2)과 같은 염증성 사이토카인의

[www.ncbi.nlm.nih.gov] Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage - PMC

factor- α (TNF- α), interleukin IL 1 β , IL-6, monocyte chemoattractant protein-1 (MCP-1), and C-X-C motif chemokine ligand 1 (CXCL1/KC) were significantly increased in the

문장표절률: 0%

2.6 Preparation of protein extract and western blot analysis Lung tissues were homogenized using RIPA buffer (Thermo Fisher Scientific) supplemented with a protease and phosphatase inhibitor cocktail, following the manufacturer's instructions.

문장표절률: 0%

Protein concentrations were quantified using the Bradford reagent (Bio-Rad). The samples were subsequently loaded and separated using sodium dodecyl sulfate-polyacrylamide gel electrophoresis at 90 V for 120 min.

문장표절률: 0%

Following electrophoresis, the samples were transferred by the wet method onto polyvinylidene difluoride membranes (Merck Millipore) at a current of 250 mA for 60 min.

문장표절률: 0%

After blocking non-specific sites with 5% non-fat dry milk in 0.1% Tween 20 in Tris-buffered saline (TBS-T) for 1 h, the membrane

문장표절률: 0%

was incubated overnight at 4 °C with TLR1 (Abeomics, San Diego, USA), TLR2 (Abcam, Cambridge, UK), TLR4 (Invitrogen, Massachusetts, USA), TLR5 (Abcam, Cambridge, UK), TLR6 (Boster Bio, Pleasanton, USA), NF- κ B (Cell Signaling, Massachusetts, USA), p-NF- κ B (Cell Signaling, Massachusetts, USA), I κ B (Cell Signaling, Massachusetts, USA), p-I κ B (Cell Signaling, Massachusetts, USA), NLRP3 (AdipoGen Life Sciences, Inc).

문장표절률: 35%

Liestal, Switzerland), ASC (AdipoGen Life Sciences, Inc. Liestal, Switzerland), Caspase-1 (AdipoGen Life Sciences, Inc. Liestal, Switzerland), and β -actin (Santa Cruz Biotechnology, Dallas, TX, USA).

[www.copykiller.com] 손미권 박사학위 논문.hwp

발행 : 인하대학교, 2015.07.

Proteintech, Chicago, IL, USA), GAPDH, and β -actin (Santa Cruz Biotechnology, Dallas, TX, USA). Secondary antibodies were purchased from

문장표절률: 18%

Horseradish peroxidase-linked anti-rabbit IgG (Cell Signaling, Massachusetts, USA) and anti-mouse IgG (Cell Signaling, Massachusetts, USA) were used to detect antibody binding and with the help of iBright CL 1000 imaging system (Thermo Fisher Scientific), bands were visualized after treatment with the ECL reagent (Thermo Fisher Scientific).

[www.ncbi.nlm.nih.gov] Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage - PMC

imaging system (Thermo Fisher Scientific) after treatment with the ECL reagent (Thermo Fisher Scientific). The results of the densitometric analysis

문장표절률: 94%

The results of the densitometric analysis were expressed as the relative ratio of the target protein to the reference protein. The relative ratio of the target protein to the control was arbitrarily denoted as 1.

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The results of the densitometric analysis were expressed as the relative ratio of the target protein to the reference protein. The relative ratio of the target protein to the control was arbitrarily denoted

[www.mdpi.com] Ac2-26, an Annexin A1 Peptide, Attenuates Ischemia ... - MDPI

USA). The data were presented as the relative ratio of the target protein to the reference protein. The relative ratio of the target protein of the control group was

문장표절률: 100%

2.7 Statistical analysis All statistical analyses were performed using GraphPad InStat v. 3.0 (GraphPad Software, Inc., La Jolla, CA, USA).

[Copykiller] Comparative toxicity of polyhexamethylene guanidine phosphate in three strains of rats

저자 : Woo Jong-Hwan Kim Ki Cheon Kim Hyeon-Young Kim In-Hyeon Kim Sung-Hwan Lee Kyuhong

발행 : 2022

200 x magnification Statistical analysis Statistical analyses were performed using GraphPad InStat v. 3.0 (GraphPad Software, Inc., La Jolla, CA, USA). Data are presented as mean

[Copykiller] [논문] Bacillus subtilis가 함유된 목질계 인공토양의 물리·화학적 특성이 참파리 생육에 미치는 영향

저자 : 목재공학 = Journal of the Korean wood science and technology v.47 no.4, 2019년, pp.393 - 407 Kim, Ji-Su (Division of Environmental Forest Science, Major of Environmental Materials Science, Institute of Agriculture & Life Science, Gyeongsang National University) ; Jung, Ji young (Division of Environmental Forest Science, Major of Environmental Materials Science, Institute of Agriculture & Life Science, Gyeongsang National University) ; Ha, Si Young (Division of Environmental Forest Science, Major of Environmental Materials Science, Institute of Agriculture & Life Science, Gyeongsang National University) ; Yang, Jae-Kyung (Division of Environmental Forest Science, Major of Environmental Materials Science, Institute of Agriculture & Life Science, Gyeongsang National University)

발행 : 2019

2.7 Statistical analysis All statistical analyses were performed using IBM SPSS statistics v25 (IBM

문장표절률: 64%

Statistical comparisons between more than two groups were performed using one-way analysis of variance (ANOVA) followed by Dunnnett's multiple comparison test, and statistical comparisons between two groups were conducted using Student's t-test.

[Copykiller] Lactobacillus rhamnosus JY02 Ameliorates Sarcopenia by Anti-Arthritic Effects in a Dexamethasone-Induced Cellular and Murine Model

저자 : Lee Juyeon Kang Minkyung Yoo Jiseon Lee Sujeong Kang Minji Yun Bohyun Kim Jong Nam Moon Hyoungsun Chung Yihyung Oh Sangnam

발행 : 2023

Statistical analyses were performed using one-way analysis of variance (ANOVA) followed by Dunnnett's test and Tukey's multiple

[Copykiller] 활성 및 억제 약물-표적 상호작용 예측을 위한 기계학습 모델 개발과 검증 = Development and validation of a machine learning model for predicting a ctivatory and inhibitory drug-target interactions

저자 : 李圓融 활성 및 억제 약물-표적 상호작용 예측을 위한 기계학습 모델 개발과 검증 = Development and validation of a machine learning model for predicting activatory and inhibitory drug-target interactions

deviation. Statistical significance was determined using one-way analysis of variance (ANOVA) followed by Dunnnett's multiple comparison post-hoc test. Statistical significance

문장표절률: 89%

Data are presented as the mean $\pm$ SD. A value of $p < 0.05$ was considered to indicate statistically significant results.

[www.ncbi.nlm.nih.gov] Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage - PMC

Data are presented as the arithmetic mean $\pm$ SD. A value of $p < 0.05$ was considered to indicate statistically significant results.

[Copykiller] [논문] NDRG2 Expression Decreases Tumor-Induced Osteoclast Differentiation by Down-regulating ICAM1 in Breast Cancer Cells

저자 : Biomolecules & therapeutics v.24 no.1 , 2016년, pp.9 - 18 Kim, Bomi (Department of Biological Science and the Research Center for Women's Disease, Sookmyung Women's University) ; Nam, Sorim (Department of Biological Science and the Research Center for Women's Disease, Sookmyung Women's University) ; Lim, Ji Hyun (Department of Biological Science and the Research Center for Women's Disease, Sookmyung Women's University) ; Lim, Jong-Seok (Department of Biological Science and the Research Center for Women's Disease, Sookmyung Women's University)

발행 : 2016

statistical analysis. Values are represented as the mean $\pm$ SD. A value of $p < 0.05$ was considered significant. RESULTS Osteoclast differentiation is

문장표절률: 0%

3. Results 3.1 Characterization of PP, PS, and PE microplastic fragments To ascertain the detailed size and shape of three kinds of microplastic fragments, each sample was bath sonicated for 0.5 h and then studied by FE-SEM image (Fig.

문장표절률: 0%

1). The microplastic particles generally appeared as irregular fragment shapes. The results revealed that the microplastic fragments had a diameter of $6.40 \pm 1.48 \mu\text{m}$ for PP (Fig. 1a). Additionally, the average diameters of PS and PE

출처표시 문장

문장표절률: 0%

microplastics were $17.53 \pm 2.11 \mu\text{m}$ and $21.27 \pm 6.07 \mu\text{m}$, respectively (Fig. 1b-c). The zeta potential of PP, PS, and PE fragments was -8.28 ± 1.37 , -38.93 ± 4.49 , and $-5.71 \pm 1.10 \text{ mV}$, respectively (Table 1). 3.2 Inflammatory response in PP, PS, and PE-stimulated mice

문장표절률: 0%

We examined the inflammatory response to PP, PS, and PE microplastic fragment stimulation. Our results showed that total cells, macrophages, neutrophils, and eosinophils were significantly increased in the PS stimulation mice compared to those in the VC (Fig.

문장표절률: 0%

2a). The percentage of macrophages in the BALF of PS-instilled mice decreased significantly to 79.75% compared to that in VC.

문장표절률: 0%

However, the neutrophil percentage (11.00%) and eosinophil percentage (9.25%) were significantly higher than those in VC (Fig. 2b).

문장표절률: 0%

The inflammatory cellular changes in the BALF of PP- and PE-instilled mice were not significantly different from those in the VC (Fig.

문장표절률: 0%

2). Histopathological analysis of the lung tissues of PP-, PS-, and PE-instilled mice showed inflammatory cell infiltration.

문장표절률: 23%

In addition, the PS-stimulated mice showed increased macrophage infiltration (Fig. 3). Furthermore, the levels of inflammatory cytokines such as IL-1 β and IL-6 in the BALF of PS-instilled mice were higher than those in the VC, but not in PP- and PE-instilled mice (Fig.

[kaken.nii.ac.jp] 急性期重症患者疑似モデルにおける高血糖惹起性腸内細菌動態と対応策

resulted in the up-regulation of inflammatory cytokines such as IL-1 β and IL-6 in mesenteric lymph nodes, and of

문장표절률: 0%

4a-b). Our results showed that the levels of inflammatory chemokines including MCP-1, MIP-1 α , MIP-2, and KC increased in the 5 mg/kg PS-instilled mice compared to those in the VC; however, the inflammatory chemokine levels in PP- and PE-instilled mice remained significantly unchanged (Fig. 4c-f).

문장표절률: 0%

3.3 Microplastic fragment stimulation induces TLRs activation TLRs are a group of proteins involved in the early stages of the host defense against invading pathogens, which is an important factor in the regulation of inflammatory response [22-25].

문장표절률: 0%

We investigated the protein levels of TLRs in the lung tissue of microplastic-instilled mice. Our results showed that PS-instilled mice had significantly increased expression levels of TLR4 as compared to the VC group.

문장표절률: 0%

However, the levels of TLR1, 2, 5, and 6 in PS-instilled mice remained unchanged compared to those in the VC group (Fig. 5). Interestingly, PP-instilled mice showed a significant increase in the

문장표절률: 0%

expression levels of TLR2 as compared to the VC group. The expression levels of TLR1, 4, 5, and 6 did not significantly increase in PP-instilled mice (Fig.

문장표절률: 0%

5). In PE-instilled mice, the protein levels of all TLRs were not significantly different from those in VC (Fig. 5).

문장표절률: 0%

3.4 PS microplastic fragments stimulation activates NLRP3 Inflammasome through NF- κ B signaling pathway Our results showed that the p-I κ B- α protein levels in the lung tissue of PS-instilled mice were significantly increased compared to those in VC.

문장표절률: 48%

Additionally, the p-NF- κ B protein levels in the lung tissue of PS-stimulated mice increased compared to those in the VC (Fig.

[www.ncbi.nlm.nih.gov] Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage - PMC

4a-d). The p-NF- κ B protein levels in the lung tissue of 5 mg/kg PP-instilled

문장표절률: 0%

6). However, the protein levels of I κ B- α and NF- κ B phosphorylation in the lung tissues of PP- and PE-instilled mice remained unchanged (Fig.

문장표절률: 0%

6). Furthermore, we observed the protein levels of NLRP3 inflammasome components such as NLRP3, ASC, and Caspase-1. Our results showed that NLRP3, ASC, and Caspase-1 expression were significantly increased in the lung tissue of PS-stimulated mice compared to that in the VC, while PP- and PE-instilled mice did not show significant changes (Fig. 7).

문장표절률: 0%

4. Discussion We investigated the molecular mechanism of the pulmonary toxicity response to PP, PS, and PE microplastic fragment stimulation in mice.

문장표절률: 0%

Our results showed the inflammatory response including inflammatory cells, cytokines, and chemokines in BALF of PS intratracheal instillation mice increased compared to the VC.

문장표절률: 0%

Histopathological analysis of the lung tissue of PS-instilled mice revealed lung injury such as inflammatory infiltration in the perivascular/peribronchial region.

문장표절률: 0%

The PS fragments stimulation significantly increased the protein levels of TLR4 in the lung tissue with respect to the VC, but not protein levels of TLR1, 2, 5, and 6.

문장표절률: 0%

The protein levels of I κ B- α and NF- κ B phosphorylation in the lung tissue of PS-treated mice were significantly increased compared to those in VC.

문장표절률: 0%

PS stimulation led to a significant increase in NLRP3 inflammasome components including NLRP3, ASC, and Caspase-1. These results suggest that PS microplastic fragments may contribute to NF- κ B and NLRP3-mediated inflammation via the TLR4 signaling pathway in the respiratory system.

문장표절률: 0%

The detrimental effects of airborne microplastics on the pulmonary system have been rarely reported. Although in vitro and in vivo studies have demonstrated threats, the variations in the characteristics of environmental microplastics require wider toxicity investigations for a better understanding.

문장표절률: 0%

Previous studies have explored the effects of microplastic exposure on different polymers in the pulmonary system. Specifically, 6.25 mg/kg of PS microplastic intratracheal instillation in mice has been observed to induce pulmonary inflammation [37].

문장표절률: 0%

In another study, the administration of PS microplastic via intranasal instillation daily at a dose of 40 mg/kg for 21 days resulted in a significant increase in the levels of inflammatory cytokines in the lungs of mice [38].

문장표절률: 0%

PE microplastics have also been reported to exert inflammatory effects on mouse lungs at concentrations ranging between 500 to 2,000 mg/kg after 28 days of exposure via oral administration.

문장표절률: 0%

In this study, the no-observed-adverse-effect level (NOAEL) was estimated to be less than 1,000 mg/kg in male mice and < 500 mg/kg in female mice [39].

문장표절률: 0%

An evaluation of the toxicity of polypropylene fragments through oral administration in mice showed that the NOAEL for PP microplastics was greater than 2,000 mg/kg [40].

문장표절률: 0%

Nonetheless, it is worth noting that intratracheal instillation of PP microplastic in mice induces inflammation at a dose of 2.5 mg/kg, as demonstrated in a previous study [41].

문장표절률: 0%

This discrepancy in microplastic doses among toxicity assessments highlights the variations in our understanding of their effects.

문장표절률: 0%

Furthermore, the environmental concentrations of microplastics tend to vary depending on the catchment area. A recent study in Shanghai estimated that daily human exposure to inhalable indoor aerosols is approximately 704 ± 254 microplastic items with approximately 526 ± 203 microplastic items deposited in the pulmonary airway [42].

문장표절률: 0%

In other parts, microplastic concentrations range between 230 ± 94 and 358 ± 13 2 items/m³, mostly as fragments and fibres [43].

문장표절률: 0%

Generally, adult humans inhale approximately 6.5–8.97 µg/kg microplastics daily. However, this rate can be significantly higher in infants, ranging from 3 to 50 times the adult levels [44].

문장표절률: 0%

Therefore, we observed the pulmonary toxic effects of 5 mg/kg (daily concentration) in PP-, PS-, and PE-instilled mice.

문장표절률: 0%

Previous studies have revealed various physiological dysfunctions caused by microplastic exposure in vivo and in vitro [38,41,45,46].

문장표절률: 0%

These effects depend on factors such as size and shape [3]. Using FE-SEM imaging, we confirmed the shapes and sizes of PP, PS, and PE microplastic fragments. PP, PS,

문장표절률: 0%

and PE particles were observed to have relatively irregular morphologies with average sizes of about 6.40 ± 1.48 µm, 17.53 ± 2.11 µm, and 21.27 ± 6.07 µm respectively (Fig.

문장표절률: 0%

1). Studies have reported that microplastic exposure induces toxicity in various biological systems in a size-dependent manner [5,47].

문장표절률: 0%

However, in this study, PS-instilled mice showed significantly higher toxicity responses, including an increase in cellular recruitment and inflammatory cytokine and chemokine levels than PP- and PE-instilled mice (Fig.

문장표절률: 0%

2 and 4), although PP microplastic fragments were the smallest. We hypothesized that a combination of other additional properties such as surface charges might account for these responses.

문장표절률: 0%

PS particles were known to exhibit relatively higher levels of hardness and brittleness as compared to PP and PE, also recent studies have reported that PS is more likely to induce cellular system dysfunctions accompanied by the infiltration of leukocytes via physical abrasion [38, 39].

문장표절률: 0%

Moreover, PS was synthesized from the free radical polymerization of styrene, a derivative of benzene, with benzoyl peroxide as the initiator, and these chemicals were known to be a toxic effect, also which might lead to physiological dysfunction due to the chemical releases [40, 41].

문장표절률: 0%

Owing to their elevated surface-to-volume ratio, the surface charges of microplastics have been reported to play a crucial role in influencing their functions and interactions within biological systems, potentially resulting in adverse effects [48].

문장표절률: 0%

Zeta potential measurements provide information about particle charges and dispersion stability, with absolute values above 30 mV indicating low aggregation that leads to good homogenization following exposure [49,50].

문장표절률: 0%

Although the role of surface charge in microplastic toxicity has been sparsely reported, inhalation of negatively charged PS microplastic (zeta potential of -35.98 ± 0.26 mV) reportedly induced an influx of leukocytes and inflammatory cytokine expression in BALF and lung tissues of mice [51].

문장표절률: 0%

In accordance with the findings of Shao et al., polymeric particles that share similar charges, irrespective of whether negative or positive, tend to exhibit increased cytotoxicity and enhanced affinity for cells as their charge values increase [52].

출처표시 문장

문장표절률: 0%

Similarly, the mean zeta potentials recorded for PP, PS, and PE fragments in this study were -8.28 ± 1.37 , -38.93 ± 4.49 , and -5.71 ± 1.10 mV, respectively (Table 1), following a toxicity trend of PE (-5.71 ± 1.10 mV) < PP (-8.28 ± 1.37 mV) < PS (-38.93 ± 4.49 mV).

문장표절률: 0%

The interplay of these properties may contribute to the inflammatory response for microplastic exposure. Hence, further studies are imperative to gain a comprehensive understanding

문장표절률: 0%

of the precise roles and mechanisms through which these physicochemical characteristics influence both short-term and long-term exposure effects.

문장표절률: 0%

Immune cells play an essential role in homeostasis maintenance in the lung by recognizing and eliminating inhaled foreign substances; however, excessive infiltration of inflammatory cells may cause lung injury [53–55].

문장표절률: 38%

Our results showed that PS stimulation significantly increased the number of inflammatory cells including macrophages, neutrophils, and eosinophils, in the BALF of mice (Fig.

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Our results showed that the number of inflammatory cells including macrophages, neutrophils, and lymphocytes in the BALF of

문장표절률: 0%

2). In addition, the levels of inflammatory chemokines, including MCP-1, MIP-1 α , MIP-2, and KC in the BALF of PS-instilled mice significantly increased compared to those in the VC (Fig.

문장표절률: 0%

4c–f). Previous studies have reported that airborne particles such as particulate matter increased the number of macrophages, neutrophils, and eosinophils in the BALF of mice and the levels of inflammatory chemokines, including MCP-1 were increased compared to those in the VC [56].

문장표절률: 0%

MCP-1 is a key chemokine involved in the migration and infiltration of monocytes/macrophages and also plays a role in the recruitment of eosinophils to acute and chronic inflammatory sites [57,58].

문장표절률: 0%

Recent studies reported that diesel exhaust particle stimulation increased the number of neutrophils and the levels of inflammatory cytokines and chemokines such as IL-6, MCP-1, MIP-2, and KC in the lung tissue of mice [59].

문장표절률: 0%

The chemokines MIP-2 and KC are linked to the influx of neutrophils in the rodent lung [60], both of which have been implicated in the inflammatory process [61, 62].

문장표절률: 0%

These results suggest that PS stimulation causes cellular recruitment and inflammatory cytokine and chemokine release, which might lead to pulmonary inflammation in the respiratory system.

문장표절률: 0%

TLRs are essential components of the innate immune system against invading pathogens through their recognition of molecular patterns and subsequent initiation of the inflammatory response [33–35].

문장표절률: 0%

Recent studies have reported that most air pollution agents, such as particulate matter, induce inflammations through TLR2- and TLR4-mediated signaling, which is detected by the endogenous DAMP ligands released by tissue injury [63–65].

문장표절률: 0%

Recent studies have demonstrated differences in the functions of TLRs. TLR1, TLR2, and TLR6 require heterodimer formation such as TLR1/TLR2 and TLR2/TLR6 for the activation of inflammatory responses including IL-1 β secretion, whereas TLR4

문장표절률: 0%

activates the inflammatory responses as a homodimer [66–68]. TLRs initiate signaling pathways that result in the nuclear translocation of NF- κ B and NLRP3 inflammasome activation, which play an essential role in the pathogenesis of lung inflammation via cytokine release and mediators [63].

문장표절률: 0%

We examined the protein levels of TLRs in the lung tissues of PP, PS, and PE microplastic fragment-stimulated mice. The TLR2 level in the lung tissue of PP-stimulated mice significantly increased compared with that in the VC, but the levels of TLR1, TLR4, TLR5, and TLR6 did not increase (Fig.

문장표절률: 0%

5). PP-instilled mice showed no change in protein levels of p-I κ B- α , p-NF- κ B, and NLRP3 inflammasome components compared with those in the VC (Fig.

문장표절률: 0%

6 and 7). These results show that PP stimulation increases the TLR2 level; however, the absence of TLR1 and TLR6 might result in no heterodimer formation.

문장표절률: 0%

On the other hand, PS stimulation significantly increased the protein level of TLR4 (Fig. 5). The protein levels of p-I κ B- α and p-NF- κ B in the lung tissues of PS-instilled mice significantly increased compared to the VC (Fig.

문장표절률: 0%

6). In addition, a significant increase in the protein levels of NLRP3 inflammasome components including NLRP3, ASC, and Caspase-1 of lung tissue in PS-stimulated mice as compared to the VC (Fig.

문장표절률: 0%

7). These results showed that PS microplastic fragment stimulation may induce pulmonary inflammation linked to NLRP3 and NF- κ B through the TLR4 signaling pathway.

문장표절률: 80%

Author contributions IKD: **Methodology, Conceptualization, Formal analysis, Investigation, Writing-original draft, Writing-review and editing.**

[www.ncbi.nlm.nih.gov] Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage – PMC

Vehicle control Author contributions JHW: **Methodology, Conceptualization, Formal analysis, Investigation, Writing-original draft, Writing-review and editing.** SHJ: **Methodology, Formal analysis, Investigation**

문장표절률: 0%

JHW: Methodology, Formal analysis, Investigation, Writing-review and editing, S
HB: Methodology, Formal analysis, Investigation, Writing-review and editing.

문장표절률: 79%

KK: Methodology, Formal analysis, Investigation, **LK: Conceptualization, Writing-review and editing, Supervision, Funding acquisition, Project administration. All authors read and approved the final manuscript.**

문장표절률: 97%

Funding This work was supported by Korea Environment Industry & Technology Institute (KEITI) through the Measurement and Risk assessment Program for Management of Microplastics Project, funded by Korea Ministry of Environment (MOE) (grant number HE-2305).

문장표절률: 76%

Data availability All **datasets generated during the current study are available from the corresponding author on request.**

문장표절률: 58%

Declarations Conflict of interest All authors confirm that there is no conflict of interest. **Ethics approval All experimental procedures were approved by the Institutional Animal Care and Use Committee of the Korea Institute of Toxicology (IACUC #2108-0023).**

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Writing-review and editing, Supervision. **LK: Conceptualization, Writing-review and editing, Supervision, Funding acquisition, Project administration. All authors read and approved the final manuscript.** Funding This work was supported

[www.ncbi.nlm.nih.gov] Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage - PMC

Funding This work was supported by Korea Environment Industry & Technology Institute (KEITI) through the Measurement and Risk assessment Program for Management of Microplastics Project, funded by Korea Ministry of Environment (MOE) (grant number HE

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발행 : 인하대학교, 2023.03.

구조적 건전성을 확인해야 한다. **ACKNOWLEDGMENTS This work was supported by Korea Environment Industry & Technology Institute** funded by Korea Ministry of

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materials used and/or analyzed **during the current study are available from the corresponding author on** reasonable request.

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The **experimental procedures were approved by the Institutional Animal Care and Use Committee of the Korea Institute of Toxicology (IACUC #1708-0306).** 4.2. Test

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발행 : 2018

approved the final manuscript, Notes **Ethics Approval All experimental procedures were approved by the Institutional Animal Care and Use Committee of the Korea Institute of Oriental Medicine and were performed**

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문장표절률: 0%

Table 1. Surface charges of PP, PS, and PE microplastic fragments Microplastic Fragments PP PS PE Zeta Potentials (mV) -8.28 ± 1.37 -38.93 ± 4.49 -5.71 ± 1.10 Figure Legends Fig. 1 FE-SEM images of microplastic fragments (A) PP, (B) PS, and (C) PE. Scale bar 30 μ m.

문장표절률: 0%

Fig. 2 (A) Cellular changes in the BALF of mice stimulated with three microplastics (PP, PS, and PE). (B) Total and differential cells in BALF.

문장표절률: 72%

Data are presented as mean $\pm$ SD (n = 6–8 per group). #p $\leq$ 0.05; ##p $\leq$ 0.01 vs. VC. Fig. 3 (A) Representative H&E-stained section of lung tissue.

[www.ncbi.nlm.nih.gov] Polypropylene nanoplastic exposure leads to lung inflammation through p38-mediated NF- κ B pathway due to mitochondrial damage – PMC

mean $\pm$ SD (n = 6 per group). #P $\leq$ 0.05; ##P $\leq$ 0.01 vs. VC Open in a separate window Fig. 3 a Representative H&E-stained section of lung tissue. b Histological scoring of inflammatory

[Copykiller] Metabotropic Effect of Probiotic Supplementation and High-Intensity Interval Training in Menopause-Induced Metabolic Syndrome in Rats

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발행 : 2023

$\leq$ 0.001 versus sham group. \$P $\leq$ 0.05, \$\$P $\leq$ 0.01 versus OVX + Exe +

문장표절률: 0%

Black and red arrows indicate inflammatory cell infiltration and macrophage increased. Scale bar 100 μ m.

문장표절률: 20%

Fig. 4 Inflammatory cytokines & chemokines levels, including (A) IL-1 β , (B) IL-6, (C) MCP-1, (D) MIP-1 α , (E) MIP-2, and (F) KC in the BALF of mice instilled with PP, PS, and PE microplastic fragments. Data are presented as mean $\pm$ SD (n = 6–8 per group). #p $\leq$ 0.05; ##p $\leq$ 0.01 vs. VC.

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문장표절률: 0%

Fig. 5 (A) Representative western blotting analysis and relative density of TLRs 1, 2, 4, 5, and 6 in the lung tissue of PP-, PS-, and PE-instilled mice.

문장표절률: 0%

Data were normalized against β -actin. Data are presented as mean $\pm$ SD (n = 6–8 per group). ##p $\leq$ 0.01 vs. VC.

문장표절률: 0%

Fig. 6 (A) Representative western blot analysis of p-I κ B- α , I κ B- α , p-NF- κ B, and NF- κ B in the lung tissue of PP-, PS-, and PE-instilled mice.

문장표절률: 58%

(B) Relative density analysis of p-I κ B- α levels. Data were normalized against I κ B- α . (C) Relative density analysis of p-NF- κ B levels.

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were normalized against JNK. e Relative density analysis of p-I κ B- α levels. Data were normalized against I κ B- α . Data are means $\pm$ SD

문장표절률: 0%

Data were normalized against NF- κ B. Data are presented as mean $\pm$ SD (n = 6–8 per group). ##p $\leq$ 0.01 vs. VC.

문장표절률: 0%

Fig. 7 (A) Representative western blot analysis of NLRP3, ASC, and Caspase-1 in lung tissue of PP-, PS-, and PE-instilled mice. (B) Relative density analysis of NLRP3 levels.

문장표절률: 29%

(C) Relative density analysis of ASC levels, (D) Relative density analysis of Caspase-1 levels. Data were normalized against β -actin. Data are presented as mean $\pm$ SD (n = 6-8 per group), #p $\leq$ 0.05; ##p $\leq$ 0.01 vs. VC.

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mean $\pm$ SD (n = 6 per group), #P $\leq$ 0.05; ##P $\leq$ 0.01 vs. VC Open in a separate window

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