Effect Of Black Cumin on Heavy Metal-Induced Inflammation in Colorectal Cancer

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Cadmium and Arsenic

Development

and

progression

Cancers

Colorectal Cancer (CRC)

Cadmium and Arsenic

Interference with

Production of

Metabolic Intracellular Activity

Reactive Oxygen Species (ROS)
Reactive Nitrogen Species (RNS)
Cyclooxygenase 2 (COX 2)

Generation of

Oxidative Stress Inflammation

Toxicity and Mutagenesis

Black Cumin
(Nigella sativa)

Traditional Medicinal Plant

Anti-oxidant Agents

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Modulate
Toxicity of Heavy Metals

https://www.indiamart.com/proddetail/kalonji-seeds-nigella-sativa-black-cumin-lmth.٢١٣٥٥٠١٧٠٦٢

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٩%85%D%DB%8C%E٢%80%8C%D٨%B۴%D٩%88%D٨%AF

Cadmium

Arsenic

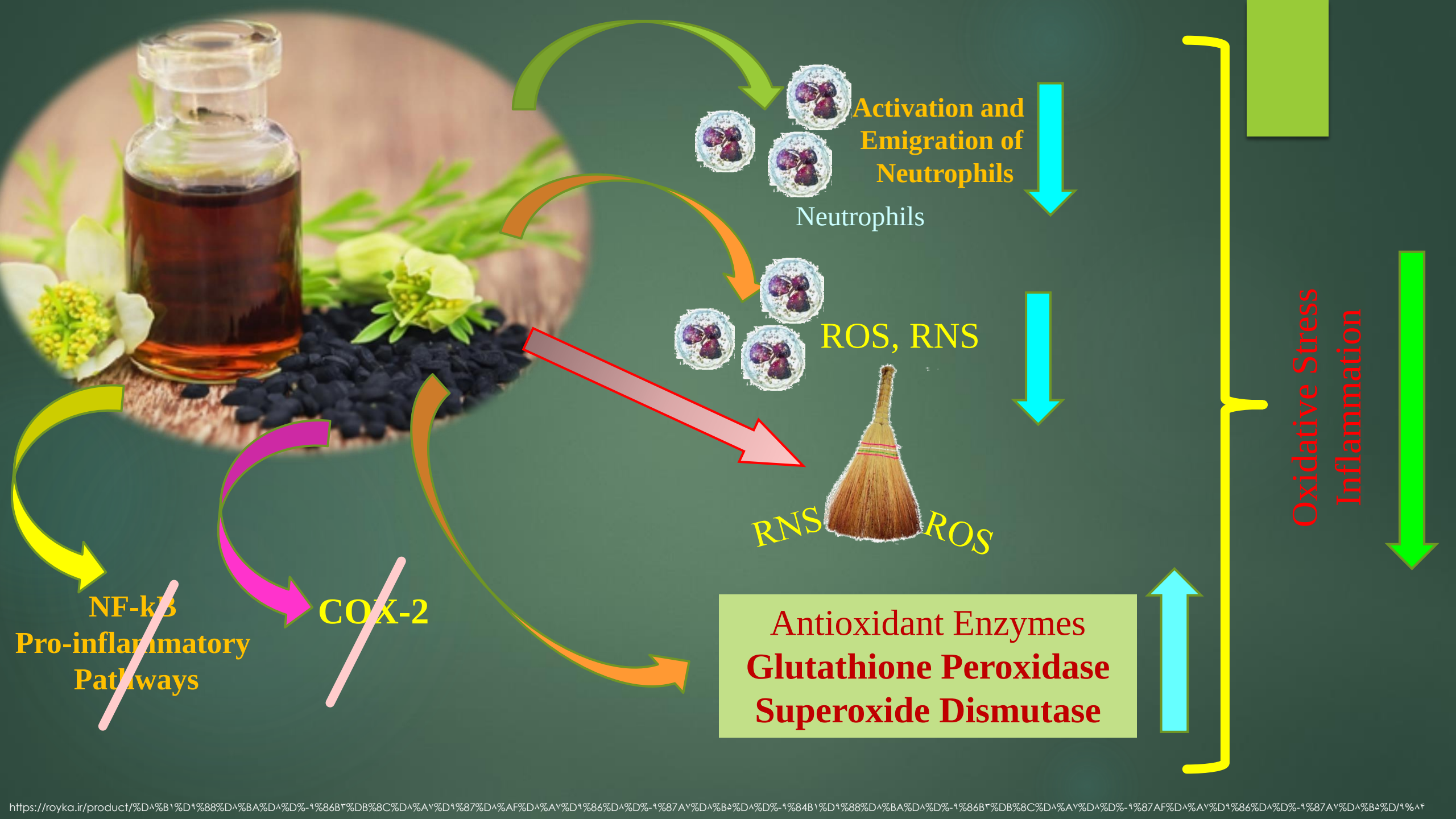
ROS
RNS
COX2

Related to

DNA
Proteins
Lipids

sensitive signaling pathways of cells

Tumor Progression



https://royka.ir/product/%D۸%B۱%D۹%۸۸%D۸%BA%D۸%D%-۹%۸۶%DB%۸C%D۸%AV%D۹%۸۷%D۸%AF%D۸%AV%D۹%۸۶%D۸%D%-۹%۸۷AV%D۸%B۵%D۸%D%-۹%۸۴B۱%D۹%۸۸%D۸%BA%D۸%D%-۹%۸۶B۳%DB%۸C%D۸%AV%D۸%D%-۹%۸۷AF%D۸%AV%D۹%۸۶%D۸%D%-۹%۸۷AV%D۸%B۵%D/۹%۸۴

Bioactive Components of Black Cumin

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Affect Production of Inflammatory Mediators and Oxidative Stress

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Attenuate Toxicities and Tumorigenesis

Thank You For Your Attention