

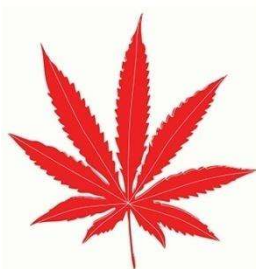


11th Pak Pharma Healthcare Expo

3rd Pakistan Food -Nutrition International Summit 2022

Wednesday - December 21-22, 2022

Pak-China Friendship Centre, Garden Avenue, Islamabad, Pakistan.



Conference Abstract

LACTOFERRIN; A NUTRACEUTICAL SUPPLEMENT AGAINST VIRAL INFECTIONS

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Abstract

Milk contains protective proteins and enzymes like immunoglobulins, lactoferrin, lysozyme, lactoperoxidase and peptidoglycan recognition protein that lead to anti-microbial and immunological properties against the bacterial and viral infections. Lactoferrin is one glycoprotein detected in milk of livestock such as cow, buffalo and camel, as camel milk containing highest amount and strongest activity in compared to the milk from other livestock species. Lactoferrin boosts the immune system by protecting the cells against bacterial and viral infections and inflammations. Activation, proliferation and regulation of the phagocytic action of immune cells are also facilitated by the lactoferrin. The boosting host immune system by nutritional supplements such as milk lactoferrin prevents microbial infections entry into the host cells. The antiviral actions of lactoferrin are against both DNA and RNA viruses such as hepatitis, herpes simplex viruses, HIV, rotavirus and respiratory viruses by binding viral particles, inhibit viral adhesion and entry into cells. Also, milk lactoferrin may directly interact with viral receptors such as heparan sulfate on the cell surfaces and prevent the virus attachment and infection. The boosting host immune system by nutritional supplements such as lactoferrin may be effective against viruses' entry and infection into the host cells. Furthermore, lactoferrin also possesses anti-inflammatory efficacy and can inhibit the circulating inflammatory cytokines. Milk lactoferrin as nutraceutical supplement in powder or tablets may be a novel promising candidate and preventative treatment for more severe infections. However, it needs more studies on dosage to verify its efficacy on prevention and treatment.

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Competing Interests:

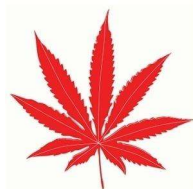
The authors declare no competing interests

Additional information is available at the end of the article.

Keywords: Milk, Lactoferrin, Anti-viral

Declaration

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