



:

ROS

ROS ) PUFA .( )

(  
 (·O<sub>2</sub><sup>-</sup>)

ROS .( ) ROS . (OH)

DNA

.( )

DNA

:

DNA

.( )

ROS

.( )

. (LPO)

LPO

PUFA

: ( )

(C )

LPO .

DNA

.( )

In vitro In vivo

.( )

...

DNA

( )

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( )

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( )

.( )  
(pH= / ) PBS

( )

(TBA)

.( )

(MDA)

( )

TBA+MDA

LPO

.( )

/ / )

PBS / Tris (

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4. Holstein  
5. Thiobarbituric acid  
6. Malondialdehyde

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1. Taurine  
2. Chelator  
3. Caffeine

.( )  
( )

TCA

TBA

)

( )

**DNA**

LPO ( )

TBA+MDA  
)

DNA

/ ( / /

.( )

MDA

SDS

( )

.( )

...

)

( DNA

LPO

( / / )

/ ( / )  
/

LPO

) DNA

(

) MDA

) (p< / )

(

.(

LPO

Merck

) PBS

(

.( / )

MDA

one-way

(version 11.0) SPSS

ANOVA

LPO

( / )

t-test

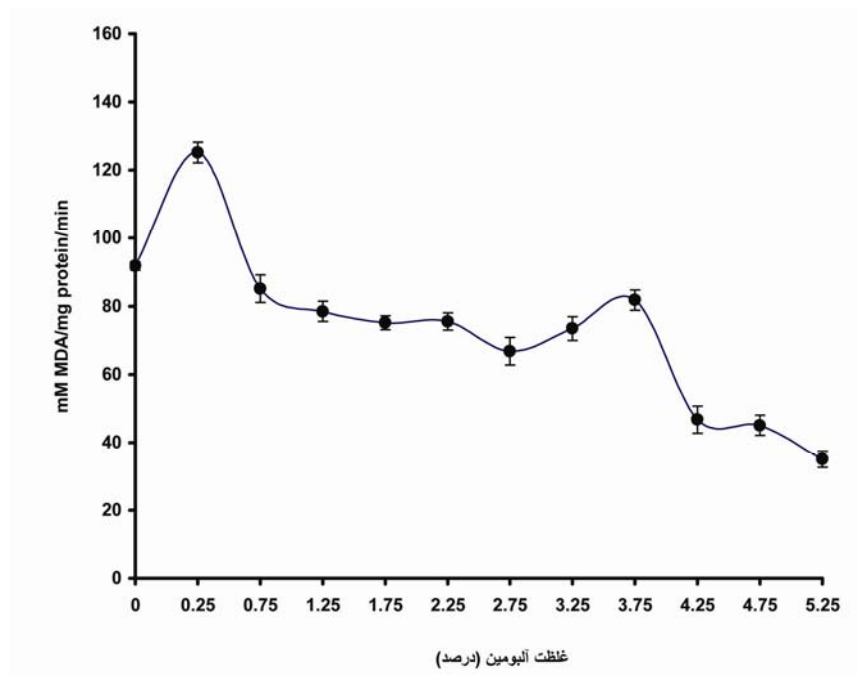
( / )

( / )

p< /

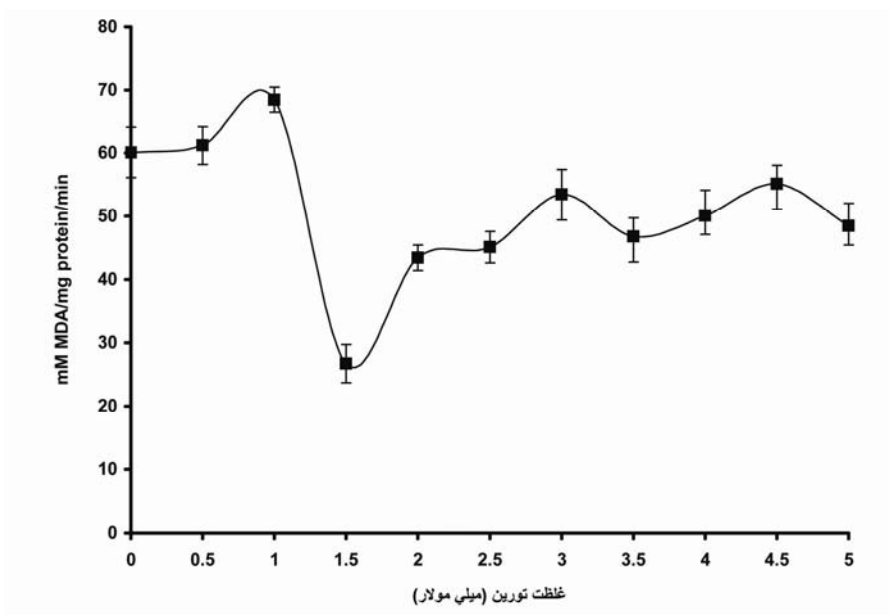
+

-



(MDA )

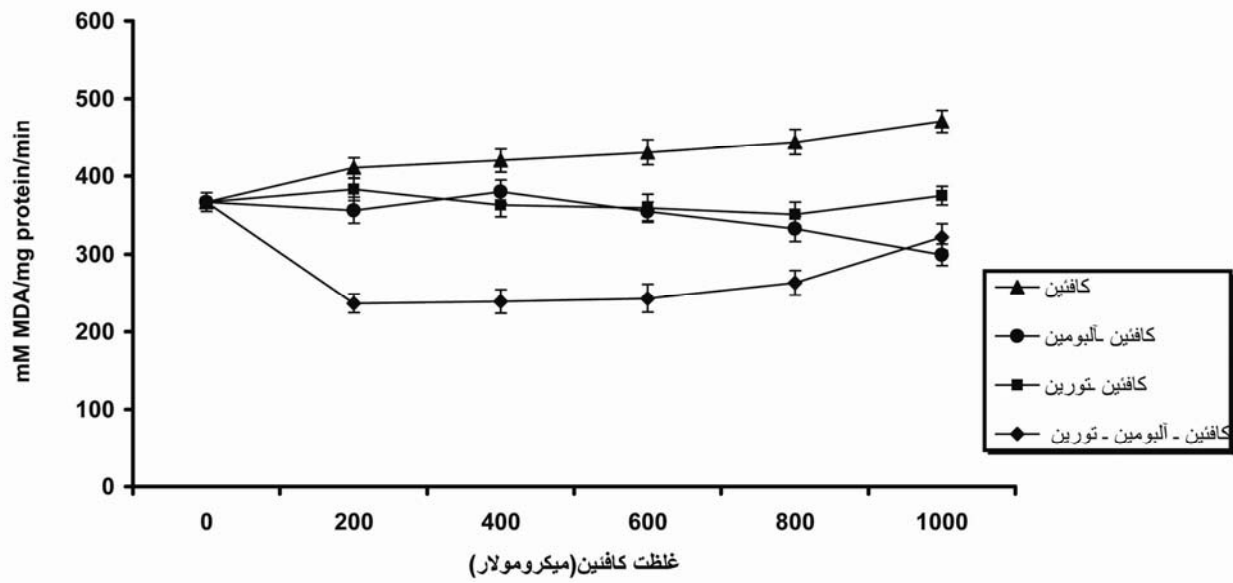
MDA



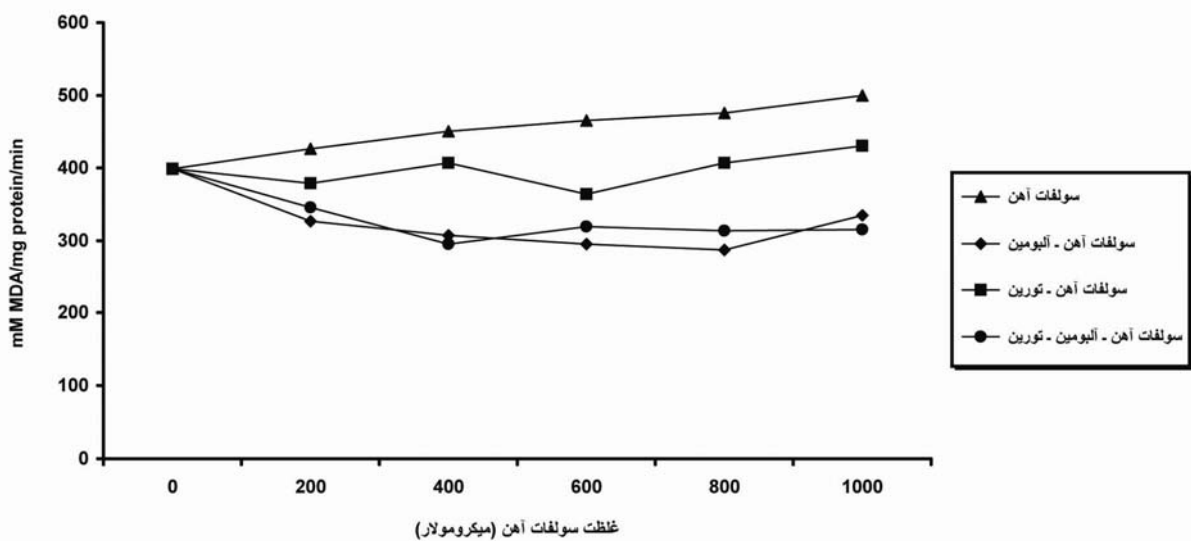
(MDA )

/ MDA

.( )



(MDA )  
 .( )



(MDA )  
 .( )

(p> / DNA

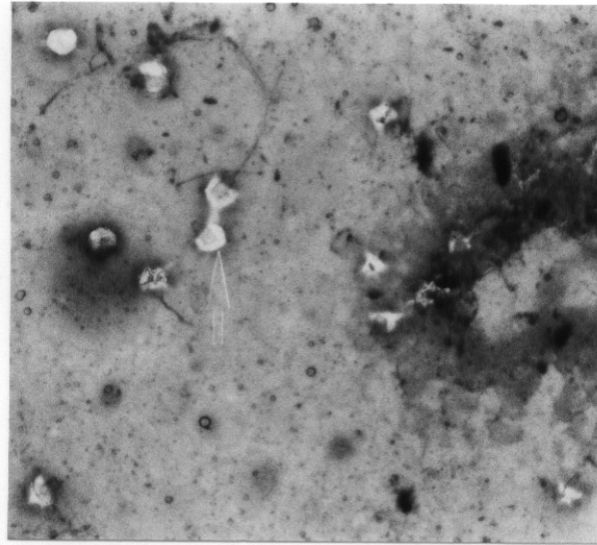
) DNA

(

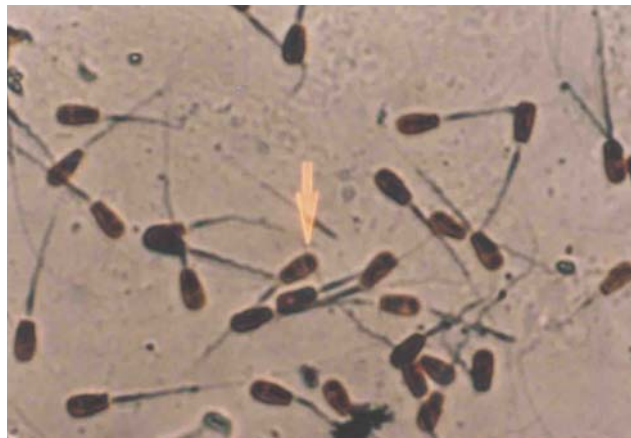
.( )

DNA

)



( )  
 (x )



(DNA )  
 (DNA )  
 (x )

( )

LPO ROS



...

.( )

·O<sub>2</sub><sup>-</sup>

LPO

·O<sub>2</sub><sup>-</sup>

DNA

)(·OH)

LPO

.( )

(·O<sub>2</sub><sup>-</sup>)

ROS

( LPO

(H<sub>2</sub>O<sub>2</sub>)

GSH

GSH

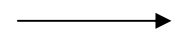
ROS

LPO

:( )

LPO

·O<sub>2</sub><sup>-</sup> + H<sub>2</sub>O<sub>2</sub>



·O<sub>2</sub> + ·OH + OH<sup>-</sup>

mg/kg B.W.)

C

/

GSH

(

.( )

.( )

.( )

MDA

LPO

LPO

O<sub>2</sub><sup>-</sup>

LPO

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(

.( )

LPO

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.( )

ROS

LPO

( )

)

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(

Balkan

MDA

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A

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ROS

.( )

LPO

...

.( )

MAD

**DNA**

Funahashi and Nagai

DNA

.( )

Barroso .( )

HSU

ROS

ROS

DNA

.( )

.( )

Lopez

DNA

ROS

LPO

DNA

.( )

LPO

DNA

.( )

( ) ROS

DNA

LPO

. ( ) DNA

DNA

DNA

. ( )

DNA

ROS

DNA

DNA

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