Journal of the Serbian Chemical Society
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J. Serb. Chem. Soc. 84 (5) S122–S125 (2019)
Supplementary material

SUPPLEMENTARY MATERIAL TO

Effects of hemazin SC 500 (terbuthylazine) on antioxidative enzymes in human erythrocytes *in vitro*

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J. Serb. Chem. Soc. 84 (5) (2019) 455–465

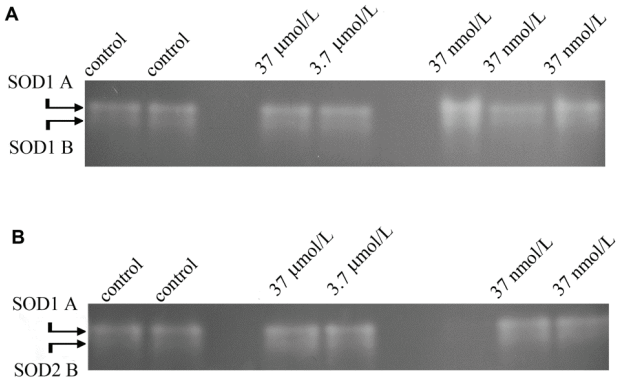

Fig. S-1. Representative native electrophoresis gels with separated SOD1 isoforms. In the SOD fraction of the control sample (0) and treated groups SOD1 A and SOD1 B isoforms were detected. Erythrocytes were treated with 37 and 3.7 µmol L^{-1} and 37 nmol L^{-1} terbuthylazine and incubated for 1 h (A) and 3 h (B) at 37 °C.

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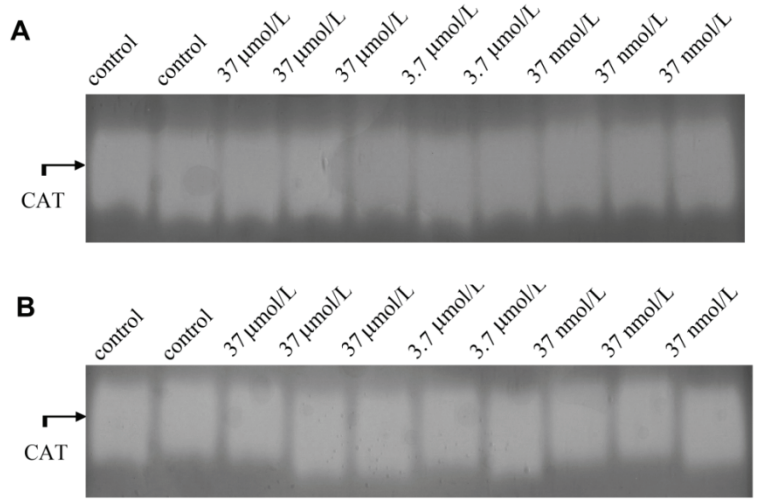

Fig. S-2. Representative native electrophoresis gels with one separated CAT (catalase) isoform in erythrocyte lysate: control (0) and groups treated with 37 and 3.7 µmol L^{-1} and 37 nmol L^{-1} terbuthylazine incubated for 1 h (A) and 3 h (B) at 37°C.

TABLE S-I. Changes of SOD1 (Cu-Zn superoxide dismutase), CAT (catalase) and GST (glutathione *S*-transferase) activities in erythrocyte lysate after treatment of erythrocytes with different pesticides *in vitro*

Sample	Type of pesticides	Conditions of treatment	Dose range	Change of activity			Ref.
				CAT	SOD1	GST	
Human erythrocytes	Clomazone isoxazolidi none herbicide	1 h, 37 °C	0, 100, 250 and 500 μg L^{-1}	CAT activity decreased at all concentrations tested	Increased SOD1 activity at lower concentrations and a decrease at the highest concentration of insecticide	–	1
Human erythrocytes	Trichlorfon organo-phosphorus insecticide	1 h, 37 °C	8, 12, 16, 20, 40, 60, 80 mg L^{-1}	CAT activity increased	SOD1 activity increased	–	2
Human erythrocytes	beta-Cyfluthrin pyrethroid insecticide	4 h, 37 °C	43, 215, 1075 μg L^{-1}	CAT activity decreased	Increased SOD1 activity at lower concentrations and a decrease at the highest concentration of insecticide	–	3
Human erythrocytes	Chlorpyri--fos-ethyl organo -phosphate insecticide	0, 30, 60, 120, 240 min; 4 °C	0.01, 0.1, 0.4, 2, 10, 50, 100 g L^{-1}	CAT activity decreased at all incubation period	Decreased SOD1 activity at high dose range at all incubation periods and increased activity at low dose range	–	4
Human erythrocytes	Diazinon organo-phosphate Insecticide	0, 60, 180 min; 4 °C	0.0033, 0.033, 0.33, 3.3 and 33 $mmol^{-1}L$	CAT activity remained unchanged	SOD1 activity increased	–	5
Rabbit erythrocytes	Lambda--cyhalothrin synthetic pyrethroid Insecticide	4 h, 37 °C	0, 0.1, 0.5, 1, 2.5 and 5 mmol L^{-1}	Decrease in CAT activity	Decrease in SOD1 activity	Decrease in GST activity	6
Rats erythrocytes	Endosulfan - organochlorine insecticide and acaricide chlorpyrifos-ethyl organophospho-rus insecticide	3 h, 37 °C	1 μg L^{-1}	CAT was significantly decreased	SOD1 was significantly decreased	GST was increased in comparison to control values	7

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