

PL 17 - Effects of Chitosan Oligosaccharides on PMA-Stimulated Rabbit Neutrophils in Vitro

J. Dou^(1,2), **C. Tan**⁽¹⁾, Y. Du⁽¹⁾, X. Bai⁽¹⁾, K. Wang⁽³⁾, X. Ma⁽¹⁾

⁽¹⁾*Dalian Institute of Chemical Physics, Chinese Academy Sciences, Dalian 116023 China -*

⁽²⁾*Graduate School of Chinese Academy Sciences -* ⁽³⁾*Shanghai Institute of Biochemistry, Chinese Academy Sciences, Shanghai 200031 China*

Abstract: To investigate the effects of chitoooligosaccharides on PMA-stimulated neutrophils isolated from the whole blood of New Zealand rabbit superoxide assays, degranulation assays and adhesion assays were used. O²⁻ production was measured by NBT (nitroblue tetrazolium) reducing test, the experiments showed that COS decreased the O²⁻ production of PMA-activated neutrophils and prominently decreased at the concentrations of 25, 50, 75 µg/ml; Elastase and myeloperoxidase (MPO) are the two enzymes were estimated in degranulation assays, COS at the concentration of 50 µg/ml prominently decreased the secretion of myeloperoxidase and at the concentrations of 25, 50, 75, 100 µg/ml decreased the secretion of elastase; meanwhile the results proved that COS decreased the adhesion to fibronectin of PMA-activated neutrophils, there were prominent decrease at the concentrations of 100, 125, 150 µg/ml.