

RESULTS AND DISCUSSION

Introduction

Parameter	Control Group	Experimental Group	Significance
Cell viability (%)	100 ± 2	98 ± 3	n.s.
Apoptosis (%)	5 ± 1	15 ± 2	p < 0.05
ROS production (fold increase)	1.0 ± 0.1	2.5 ± 0.3	p < 0.01
MDA levels (nmol/ml)	0.5 ± 0.1	1.8 ± 0.2	p < 0.001
Antioxidant enzyme activity (U/ml)	0.8 ± 0.1	0.3 ± 0.05	p < 0.05
Gene expression (fold change)	1.0 ± 0.1	3.2 ± 0.4	p < 0.01
Protein levels (fold change)	1.0 ± 0.1	2.1 ± 0.2	p < 0.05
Cell cycle distribution (%)	G0/G1: 70, S: 25, G2/M: 5	G0/G1: 85, S: 10, G2/M: 5	p < 0.05

Statistical Analysis

Data are presented as mean ± SD. Statistical significance was determined by Student's t-test.