

Supplementary Material

The Effect of α -Lipoic Acid on Oxidative Stress in Adipose Tissue of Rats with Obesity-Induced Insulin Resistance

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Parameter	CTRL			HFD			HFD+ALA		
	VAT	SAT	p	VAT	SAT	p	VAT	SAT	p
AGE	7.395	4.684	0.8992	10.810	7.242	0.0077	9.133	7.241	0.3961
AOPP	5.291	6.015	0.9928	14.173	9.946	0.0199	11.414	8.918	0.3834
LOOH	2.705	1.675	0.1470	4.283	4.616	0.9656	3.063	3.382	0.9717
MDA	1.133	0.565	0.1460	2.560	1.460	0.0002	1.864	1.333	0.2020
PC	13.385	14.069	0.9954	23.563	15.764	<0.0001	14.580	17.245	0.3508
Tryptophan	962.341	412.191	<0.0001	520.378	551.788	0.9968	638.926	601.756	0.9930
Kynurenine	2.973	1.932	0.1626	4.716	3.202	0.0101	2.858	2.679	0.9983
N-formylkynurenine	1.138	0.782	0.0321	1.630	1.504	0.8746	1.100	1.440	0.0462
Dityrosine	7.944	8.214	>0.9999	19.050	20.003	0.9773	14.833	19.401	0.0116
NOX	0.072	0.055	0.5273	0.117	0.084	0.0154	0.093	0.073	0.3546
NO	2.700	3.792	0.1970	1.087	3.053	0.0013	1.998	2.382	0.9621
S-nitrosothiols	8.464	8.253	>0.9999	10.663	10.016	0.9797	9.003	8.499	0.9935
Peroxynitrite	13.835	26.654	<0.0001	22.067	30.739	0.0009	20.165	24.665	0.2366
SOD	19.141	7.912	<0.0001	17.067	15.885	0.9748	14.922	16.422	0.9315
CAT	0.437	0.351	0.8992	0.991	0.483	<0.0001	0.646	0.420	0.0804
GPx	2.113	1.224	0.0177	2.875	2.204	0.1336	2.273	2.150	0.9972
GSH	0.467	0.365	0.0183	0.310	0.177	0.0008	0.533	0.247	<0.0001
GSSG	0.466	0.220	<0.0001	0.512	0.208	<0.0001	0.390	0.215	<0.0001
GSH2/GSSG	0.483	0.656	0.7388	0.198	0.174	>0.9999	0.834	0.332	0.0026
Bax	0.011	0.019	0.2551	0.022	0.024	0.9797	0.013	0.023	0.0599
Bcl-2	0.134	0.116	0.9568	0.067	0.059	0.9989	0.133	0.068	0.0274
Bax/Bcl-2	0.097	0.183	0.9880	0.484	0.684	0.6854	0.108	0.374	0.3840
TNF α	0.070	0.146	0.3892	0.158	0.328	0.0008	0.094	0.190	0.1533

Table S1. Levels of oxidative stress and inflammation parameters in visceral (VAT) and subcutaneous (SAT) adipose tissue of CTRL, HFD and HFD+ALA rats; VAT – visceral adipose tissue, SAT – subcutaneous adipose tissue, CTRL – control, HFD – high fat diet, HFD+ALA – high fat diet + α -lipoic acid, p – p-value, catalase (CAT); glutathione peroxidase (GPx); oxidized glutathione (GSSG); reduced glutathione (GSH); glutathione redox status [GSH2/GSSG]; superoxide dismutase (SOD); lipid hydroperoxides (LOOH); malondialdehyde (MDA); the advanced oxidation protein products (AOPP); protein carbonyl groups (PC); advanced glycation end products (AGE); NADPH oxidase (NOX); nitric oxide (NO); tumor necrosis factor α (TNF- α); Bcl-2-associated X protein (Bax); B-cell lymphoma 2 (Bcl-2)