

DAFTAR ISI

| | Halaman |
|------------------------------------|----------------|
| HALAMAN JUDUL | i |
| HALAMAN PERSETUJUAN | ii |
| HALAMAN PERNYATAAN | iii |
| RIWAYAT HIDUP | iv |
| KATA PENGANTAR | v |
| ABSTRAK | viii |
| DAFTAR ISI | x |
| DAFTAR TABEL | xiii |
| DAFTAR GAMBAR | xiv |
| DAFTAR LAMPIRAN | xv |
| DAFTAR SINGKATAN | xvi |
| | |
| BAB I. PENDAHULUAN | 1 |
| 1.1. Latar Belakang | 1 |
| 1.2. Perumusan Masalah | 4 |
| 1.3. Tujuan Penelitian | 4 |
| 1.4. Originalitas Penelitian | 5 |
| 1.5. Manfaat Penelitian | 6 |
| | |
| BAB II. TINJAUAN PUSTAKA | 7 |
| 2.1. Puasa Ramadhan | 7 |
| 2.2. ROS | 21 |

| | |
|---|-----------|
| 2.3. Antioksidan | 23 |
| 2.4. Stress Oksidatif | 32 |
| 2.5. Penyakit Degeneratif | 34 |
| 2.6. Efek Puasa, SOD, GPx, & Stres Oksidatif..... | 35 |
| BAB III. KERANGKA PENELITIAN | 38 |
| 3.1. Kerangka Teori | 40 |
| 3.2. Kerangka Konsep | 41 |
| 3.3. Hipotesis | 41 |
| BAB IV. METODE PENELITIAN | 42 |
| 4.1. Jenis dan Rancangan Penelitian | 42 |
| 4.2. Populasi dan Sampel Penelitian | 43 |
| 4.3. Variabel dan Definisi Operasional | 45 |
| 4.4. Bahan/Materi Penelitian | 47 |
| 4.5. Alat | 50 |
| 4.6. Cara Penelitian | 51 |
| 4.7. Teknik Pengumpulan Data | 52 |
| 4.8. Analisis Data | 53 |
| BAB V. HASIL DAN PEMBAHASAN | 54 |
| 5.1. Hasil Penelitian | 54 |
| 5.2. Pembahasan | 59 |
| 5.3. Kendala Penelitian | 63 |

| | |
|------------------------------------|----|
| BAB VI. KESIMPULAN DAN SARAN | 64 |
| 6.1. Kesimpulan | 64 |
| 6.2. Saran | 64 |
| DAFTAR PUSTAKA | 65 |
| LAMPIRAN..... | 68 |

DAFTAR TABEL

| | |
|--|----|
| Tabel.1. Originalitas Penelitian | 5 |
| Tabel.2. Makanan Hewan Coba | 48 |
| Tabel.3. Data Hasil Rerata BB, Jumlah Kalori, SOD, dan GPx | 54 |
| Tabel.4. Uji Post-Hoc LSD Untuk Variabel SOD dan GPx | 56 |
| Tabel.5. Uji Post-Hoc LSD Untuk Jumlah Kalori | 57 |

DAFTAR GAMBAR

| | |
|---|----|
| Gambar 1. Jalur metabolisme karbohidrat, lemak, & protein | 12 |
| Gambar 2. Jalur metabolisme karbohidrat | 13 |
| Gambar 3. Jalur metabolisme protein | 14 |
| Gambar 4. Proses deaminasi protein | 14 |
| Gambar 5. Proses transminasi protein | 15 |
| Gambar 6. Metabolisme lemak | 16 |
| Gambar 7. Hubungan metabolisme karbohidrat, lemak, dan protein..... | 16 |
| Gambar 8. Pembentukan Keton Bodies | 21 |
| Gambar 9. Kerangka Teori | 40 |
| Gambar 10. Kerangka Konsep | 41 |
| Gambar 11. Skema Penelitian | 42 |
| Gambar 12. Alur Penelitian | 52 |
| Gambar 13. Analisis korelasi kadar SOD dan GPx | 58 |

DAFTAR LAMPIRAN

| | |
|---|----|
| Lampiran 1. Hasil Analisa SPSS 16.0 | 68 |
| Lampiran 2. Surat Permohonan Ijin Pengambilan Data | 77 |
| Lampiran 3. Surat Ethical Clearance | 78 |
| Lampiran 4. Surat Telah Melakukan Penelitian | 79 |
| Lampiran 5. Gambar Kandang Tikus | 80 |
| Lampiran 6. Gambar Prosedur Pemberian Pakan AIN-93M Melalui Sonde | 81 |

DAFTAR SINGKATAN

| | |
|----------------|---|
| SOD | : <i>Superoxide Dismutase</i> |
| GPx | : <i>Glutathione Peroxidase</i> |
| CR | : <i>Caloric restriction</i> |
| DM | : <i>Diabetes Mellitus</i> |
| ATP | : <i>Adenosine Triphosphate</i> |
| ROS | : <i>Reactive Oxygen Species</i> |
| DR | : <i>Dietary Restriction</i> |
| ADF | : <i>Alternate Day Fasting</i> |
| EM | : <i>Emden Meyerhof</i> |
| NBT | : <i>Nitroblue Tetrazolium</i> |
| ETC | : <i>Electron Transport Chain</i> |
| NAD | : <i>Nicotinamide adenine dinucleotide</i> |
| NADH | : <i>Nicotinamide Adenine Dinucleotide Hydride</i> |
| SIRT1 | : <i>Silent Information Regulator</i> |
| PGC-1 α | : <i>Peroxisome proliferator-activated receptor gamma coactivator 1-alpha</i> |
| NRF-1 | : <i>Nuclear respiratory factor 1</i> |
| NRF-2 | : <i>Nuclear respiratory factor 2</i> |
| ARE | : <i>Antioxidant Response Element</i> |
| eNOS | : <i>endothelial Nitric Oxide Synthase (eNOS)</i> |
| NO | : <i>Nitric Oxide</i> |
| UCP | : <i>Uncoupling Protein</i> |
| Keap-1 | : <i>Kelch ECH Association Protein</i> |
| SIRT3 | : <i>Sirtuin 3</i> |