

Materials List for

Assessing Mitochondrial Function in Sciatic Nerve by High-Resolution Respirometry

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jove.com/video/63690

Materials

| Name | Company | Catalog Number | Comments |
|---|-------------------------------|----------------|--|
| Adenosine 5' triphosphate disodium salt hydrate | Sigma-Aldrich | A26209 | |
| Adenosine 5'-diphosphate sodium salt | Sigma-Aldrich | A2754 | |
| Amplex Red Reagent | Thermo Fisher scientific | A12222 | Amplex Red is prepared in DMSO accordingly with product datasheet |
| Antimycin A (from <i>Streptomyces</i> sp.) | Sigma-Aldrich | A8674 | |
| Bovine Serum Albumin | Sigma-Aldrich | A7030 | heat shock fraction, protease free, fatty acid free, essentially globulin free, pH 7, ≥98% |
| Calcium carbonate | Sigma-Aldrich | C6763 | |
| Carbonyl cyanide 4-(trifluoromethoxy)phenylhydrazone (FCCP) | Sigma-Aldrich | C2920 | |
| Cytochrome c | Sigma-Aldrich | C7752 | (from equine heart; small hemeprotein) |
| DataLab version 5.1.1.91 | OROBOROS INSTRUMENTS, Austria | | Copyright (c) 2002 - 13 by Dr. Erich Gnaiger |
| Digital orbital microplate shaker 120V | Thermo Fisher scientific | 88882005 | |
| DL-Dithiothreitol | Sigma-Aldrich | 43819 | |
| EGTA sodium salt | Sigma-Aldrich | E8145 | |
| Hamilton syringe | Sigma-Aldrich | HAM80075 | 10 uL, 25 uL and 50 uL |
| HEPES | Sigma-Aldrich | H3375 | |
| Hydrogen peroxide solution 30% W/W | Merck | H1009 | |
| Imidazole | Sigma-Aldrich | I2399 | |
| L-(-)-Malic acid | Sigma-Aldrich | M7397 | |
| Magnesium chloride hexahydrate | Sigma-Aldrich | M2393 | |
| MES sodium salt | Sigma-Aldrich | M3885 | |
| Micro-dissecting forceps, curved | Sigma-Aldrich | F4142 | |
| Micro-dissecting forceps, straight | Sigma-Aldrich | F4017 | |

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|--|----------------------------------|---|---|
| O2K - Filter set Amplex Red | OROBOROS INSTRUMENTS, Austria | 44321-01 | Fasching M, Sumbalova Z, Gnaiger E (2013) O2k-Fluorometry: HRR and H2O2 production in mouse brain mitochondria. Mitochondr Physiol Network 17.17. |
| O2K - Fluorescence LED2 - module component Fluorescence-Sensor Green | OROBOROS INSTRUMENTS, Austria | 44210-01 | |
| Oligomycin | Sigma-Aldrich | O4876 | (from <i>Streptomyces diastatochromogenes</i> ; mixture of oligomycins A, B, and C |
| OROBOROS Oxygraph-2k | OROBOROS INSTRUMENTS, Austria | http://www.orooboros.at | |
| Palmitoylcarnitine (Palmitoyl-DL-carnitine-HCl) | Sigma-Aldrich | P4509 | |
| Peroxidase from horseradish | Sigma-Aldrich | P8375 | |
| Petri dishes, polystyrene | MERCK | P5606 | |
| Phosphocreatine disodium salt hydrate | Sigma-Aldrich | P7936 | |
| Potassium dihydrogen phosphate monobasic | Sigma-Aldrich | PHR1330 | |
| Potassium hydroxide | Sigma-Aldrich | 221473 | |
| Rotenone | Sigma-Aldrich | R8875 | |
| Saponin | Sigma-Aldrich | SAE0073 | |
| Sodium pyruvate | Sigma-Aldrich | P5280 | |
| Sodium succinate dibasic hexahydrate | Sigma-Aldrich | S2378 | |
| Sucrose | Sigma-Aldrich | S9378 | |
| Taurine | Sigma-Aldrich | T0625 | |