

Materials List for:

# Measuring *In Vivo* Changes in Extracellular Neurotransmitters During Naturally Rewarding Behaviors in Female Syrian Hamsters

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## Materials

| Name                                 | Company                     | Catalog Number  | Comments  |
|--------------------------------------|-----------------------------|---|---|
| Nembutal                             | Oak Pharmaceuticals Inc.    | 76478-501-50  | Pentobarbital sodium injection, USP. This lab uses 8.5 mg/100 g body weight, injected intraperitoneally.  |
| Loxicom analgesic                    | Norbrook Laboratories       | 6451603670  | NSAID antiinflammatory and analgesic used for post-operative pain control. Generic: meloxicam.  |
| Enroflox antibiotic                  | Norbrook Laboratories       | 5552915411  | Fluoroquinolone antibiotic for post-operative infection prevention. Generic: Enrofloxacin.  |
| Beuthanasia-D                        | Merck Animal Health         | 00061047305   | Pentobarbital Sodium, Phenytoin Sodium euthanasia agent.  |
| Bone screws                          | Pinnacle Technologies, Inc. | 8111-16   | 1/8" bone screw (Pkg. of 16) used to affix skull cap to skull.  |
| Dental acrylic (Bosworth Duz-All)    | Bosworth                    | 166261C   | Self curing dental acrylic is used in construction of a skull cap to affix cannula and head mount to skull.   |
| Hardware biosensor setup             | Pinnacle Technologies, Inc. | 8400-K2   | Pinnacle offers complete hardware kits for new users of our tethered biosensor system for rats. Kits include a commutator, preamplifier, and data conditioning and acquisition system   |
| Base video computer package          | Pinnacle Technologies, Inc. | 9000-K1   | The base computer package includes a preconfigured computer with ample hard disk storage, a high-definition monitor, a keyboard and mouse, an uninterruptible power supply, and all necessary cables.                               |
| Video EQ700 EverFocus camera package | Pinnacle Technologies, Inc. | 9000-K10  | EQ700 night vision capable box camera with independent IR source was obtained as part of Pinnacle video computer package. Dome camera (9000-K9) and HD camera (9000-K11) options are also available.                                |
| Sirenia Acquisition software         | Pinnacle Technologies, Inc. | Free--available to download from <a href="http://pinnacle.com">pinnacle.com</a> | Sirenia Acquisition provides a single platform for recording data from any Pinnacle hardware system. The software features synchronization of all data streams, user-configurable settings, data consolidation, and multiple export |

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|   |                             |               | options. In addition, the software includes basic review and analysis modules for biosensor recordings. Sirenia delivers free II-in-one software that is ideal for data acquisition and review.  |
| Tethered rat in vitro calibration kit         | Pinnacle Technologies, Inc. | 7000-K2-T-BAS | In order to relate the current changes measured by a biosensor to actual changes in analyte concentration, it is necessary to calibrate the biosensor prior to implantation into the animal. The process also confirms the integrity and selectivity of the sensors. Calibration kit includes 20 mL jacketed beaker (#7058), 1/2" by 1/8" magnetic stir bar (#7059), right angle clamp (#7056), 2 prong single-adjustment clamp (#7055), 4-channel calibration preamplifier (#7053), and calibration holder (#7051). |
| Stir plate                                    | Corning                     | 6795-410D     | Corning digital Stirrer, 5" x 7", 120 VAC used to spin magnetic stirrer in jacketed beaker during <i>in vitro</i> calibration of glutamate biosensors.   |
| Water bath capable of closed loop circulation | PolyScience                 | 8006A11B      | PolyScience 8006A11B 6L Standard Digital Heated Circulating Bath, 120VAC water bath was used with plastic tubing to heat jacketed beaker to physiological temperature.   |
| Carbon fiber sensor with BASi rat cannulae    | Pinnacle Technology, Inc.   | 7002-CFS      | Carbon fiber electrode used for recording dopamine neurotransmission.  |
| Ag/AgCl reference electrode                   | Pinnacle Technology, Inc.   | 7065          | Necessary for carbon fiber recordings.   |
| Glutamate biosensors                          | Pinnacle Technology, Inc.   | 7001          | Enzymatic biosensor probe used for recording glutamatergic neurotransmission.  |
| BASi guide cannulae                           | Pinnacle Technologies, Inc. | 7030          | Guide cannulae implanted into brain region of interest to guide probe.   |
| BASi cannula plastic headpiece for rats       | Pinnacle Technologies, Inc. | 7011          | Headmount stabilizes probe and attaches to potentiostat.   |