

Materials List for:

Assessing Transmissible Spongiform Encephalopathy Species Barriers with an *In Vitro* Prion Protein Conversion Assay

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Materials

| Name | Company | Catalog Number | Comments |
|---|--------------------------|---|---|
| 12% Bis-Tris SDS-PAGE gels | Life Technologies | NP0342 | |
| 0.5 mm Zirconium oxide beads | Next Advance | ZROB05 | Other varieties of beads are also effective |
| Antibodies | various suppliers | | Select appropriate primary and secondary antibodies for immunoblot detection of PrP ^{res} from species of interest |
| Bead homogenizer | Next Advance | BBY24M | |
| Centrifuge | Beckman Coulter | 369434 | High speed with temperature control |
| Conical tubes | any brand | | |
| Cotton-tipped applicator | Uline | S-18991 | |
| Cuphorn sonicator | Heat Systems-Ultrasonics | W-380 | Heat Systems-Ultrasonics, Inc. is now Qsonica, LLC |
| Densitometry software program | UVP | Vision Works LS Image Acquisition and Analysis software | Other programs, such as NIH ImageJ, will also work |
| Dounce homogenizer | Kimble Chase | 885300 | |
| End-over-end mixer | Labnet International | H5600 | |
| Ethylenediaminetetra acetic acid | Boston Bioproducts | P-770 | Hazardous chemical: eye irritation |
| Guanidine hydrochloride, 8 M | Thermo Fisher Scientific | 24115 | Hazardous chemical: acute toxicity, skin irritation, eye irritation |
| Heating block | Fisher Scientific | 11-718 | |
| Hydrochloric acid | Sigma-Aldrich | 435570 | Hazardous chemical: strong acid |
| Lithium dodecyl sulfate sample buffer, 4x | Life Technologies | NP0008 | Hazardous chemical: skin & respiratory irritation, serious eye damage, flammable solid |
| Methanol | Fisher Scientific | A454-4 | Hazardous chemical: acute toxicity, flammable liquid |
| Microcentrifuge tubes | any brand | | |
| Mini-centrifuge | Labnet International | C1301 | |
| N-lauroyl-sarcosine (sarkosyl) | Sigma-Aldrich | L-5125 | Hazardous chemical: acute toxicity, skin irritation, eye damage |
| Nonidet P-40 | Amresco | M158 | Hazardous chemical: skin irritation, eye damage |

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| SDS-PAGE gel system | Life Technologies | NuPAGE electrophoresis system | Other SDS-PAGE systems will also work |
| PCR tubes (low-binding) | Axygen | PCR-02-L-C | |
| Pestle homogenizer | Fisher Scientific | 03-392-106 | |
| pH meter | Sentron | SI600 | |
| Polyvinylidene difluoride membrane | Millipore | IPVH00010 | |
| Proteinase K | Promega | V3021 | Hazardous chemical: skin & eye irritation, respiratory sensitisation, organ toxicity |
| Reducing agent for SDS-PAGE samples, 10x | Life Technologies | NP0009 | |
| Sodium chloride | Fisher Scientific | 7647-14-5 | |
| Sodium deoxycholate | Sigma-Aldrich | D6750 | Hazardous chemical: acute toxicity |
| Sodium dodecyl sulfate | Thermo Fisher Scientific | 28364 | Hazardous chemical: acute toxicity, skin irritation, eye damage, flammable solid |
| Sodium hydroxide | Sigma-Aldrich | S5881 | Hazardous chemical; strong base |
| Syringe | BD Biosciences | various | Use syringe size appropriate to volumes of substrate to be homogenized |
| Syringe needles | BD Biosciences | various | |
| Thermoshaker (PCR tube shaker) | Hangzhou All Sheng Instruments | MS-100 | |
| Tris base | Bio Basic | 77-86-1 | Hazardous chemical: skin, eye, respiratory irritation |
| Triton X-100 | Integra Chemical Company | T756.30.30 | Hazardous chemical: acute toxicity, eye irritation |
| Vortexer | Fisher Scientific | 12-812 | |