**Table S1**

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| --- | --- | --- | --- | --- |
| **Antibody** | **Use** | **Dilution** | **Supplier** | **Reference** |
| Actin | WB | 1:2000 | Abcam | ab1801 |
| Agrin | WB | 1:200 | Santa Cruz Biotech | sc-374117 |
| a-bungarotoxin, Alexa Fluor 488 conjugate | IF | 1:500 | Invitrogen | B13422 |
| a-Tubulin | WB | 1:1000 | Santa Cruz Biotech | sc-5546 |
| βIII-Tubulin | WB | 1:200 | Santa Cruz Biotech | sc-80016 |
| Bax | WB | 1:200 | Santa Cruz Biotech | sc-20067 |
| Bim | WB | 1:200 | Santa Cruz Biotech | sc-374358 |
| Calnexin | WB | 1:200 | Santa Cruz Biotech | sc-23954 |
| Calpain 1 | WB | 1:200 | Santa Cruz Biotech | sc-271313 |
| Calpain 2 | WB | 1:200 | Santa Cruz Biotech | sc-373966 |
| Calpastatin | WB | 1:1000 | Santa Cruz Biotech | sc-32324 |
| Cathepsin L | WB | 1:1000 | Abcam | ab133641 |
| Cleaved caspase 3 | WB | 1:1000 | Abcam | ab2302 |
| 4E-BP1 | WB | 1:1000 | Cell Signaling | 9452 |
| EGR2 | WB | 1:100 | Santa Cruz Biotech | sc-293198 |
| ERK1/2 | WB | 1:1000 | Cell Signaling | 9102 |
| GAP43 | IF | 1:250 | Novus Biologicals | NB300-143 |
| GAPDH | WB | 1:2000 | Abcam | ab9485 |
| GPR39 | IHC | 1:500 | Abcam | ab39227 |
| GSK3 | WB | 1:1000 | Santa Cruz Biotech | sc-56913 |
| HDAC4 | WB | 1:1000 | Cell Signaling | 7628 |
| JNK | WB | 1:200 | Santa Cruz Biotech | sc-7345 |
| Laminin | IF | 1:200 | Dako | Z0097 |
| LC3A/B | WB | 1:1000 | Cell Signaling | 12741 |
| NF-L | WB | 1:200 | Santa Cruz Biotech | sc-20012 |
| NF-M | WB | 1:200 | Santa Cruz Biotech | sc-398532 |
| NF | IHC,IF |  | Dako | IR607 |
| NGF | WB | 1:200 | Santa Cruz Biotech | sc-36594 |
| Nmnat1 | WB | 1:200 | Santa Cruz Biotech | sc-271557 |
| NSE | IF |  | Dako | IS612 |
| MAFbx | WB | 1:200 | Santa Cruz | sc-166806 |
| MAG | WB | 1:1000 | R&D | AF538 |
| MBP | WB | 1:500 | Abcam | ab62631 |
| MBP | IH,IF | 1:100 | Dako | A0623 |
| Mfn2 | WB | 1:200 | Santa Cruz Biotech | sc-100560 |
| MPZ | WB | 1:1000 | Abcam | ab31851 |
| Murf1 | WB | 1:200 | Santa Cruz Biotech | sc-32920 |
| Musk | WB | 1:200 | Santa Cruz Biotech | sc-134398 |
| Obestatin | IHC,IF | 1:100 | Abcam | ab41704 |
| Myogenin | WB | 1:1000 | Hibridoma Bank | F5D |
| Oct6 | WB | 1:200 | Santa Cruz Biotech | Sc-390056 |
| p62 | WB | 1:1000 | Cell Signaling | 5114S |
| pAkt(S473) | WB | 1:1000 | Cell Signaling | 4060 |
| p4E-BP1(T37/46) | WB | 1:1000 | Cell Signaling | 9459 |
| pEGFR(Y1068) | WB | 1:1000 | Cell Signaling | 2234 |
| pERK1/2(T202/Y204) | WB | 1:1000 | Cell Signaling | 9101 |
| pFoxO1 (T24)/FoxO3a (T32)/FoxO4(T28) | WB | 1:1000 | Cell Signaling | 2599 |
| pGSK3(S21/9) | WB | 1:1000 | Cell Signaling | 9331 |
| pJNK(T183/Y185) | WB | 1:200 | Santa Cruz Biotech | sc-6254 |
| pmTOR(S2448) | WB | 1:1000 | Cell Signaling | 2971 |
| pS6(S240/244) | WB | 1:1000 | Cell Signaling | 2215 |
| pTRKA(Y490) | WB | 1:1000 | Cell Signaling | 9141 |
| SV2 | IF | 1:200 | Santa Cruz Biotech | sc-376234 |
| TH | IF | 1:500 | Abcam | ab101853 |
| Wnt3 | WB | 1:200 | Santa Cruz Biotech | sc-74537 |

Note: Relation of the primary antibodies used in the different analyses performed in this work. WB, western blot; IF, immunofluorescence; IHC, immunohistochemistry.