

Product References

Clonetics™ Rat & Mouse Neuronal Cells

Mouse Brain Neuronal

1. Canals M, Angulo E, Casado C, Vanel A, Mallol J, Vinals F, Staines W, Tinner B, Hillion J, Agnati L, Fuxé K, Ferre S, Lluis C, Franco R. Molecular mechanisms involved in the adenosine A₁ and A_{2a} receptor-induced neuronal differentiation in neuroblastoma cells and striatal primary cultures. *J Neurochem.* 2005; 92: 337-48.
2. Fuxé K, Agnati LF, Jaconsen K, Hillion J, Canals M, Torvinen M, Tinner-Staines B, Staines W, Rosin D, Terasmaa A, Popoli P, Leo G, Vergoni V, Lluis C, Ciruela F, Franco R, Ferré S. Receptor heteromerization in adenosine A_{2a} receptor signaling: relevance for striatal function and Parkinson's disease. *Neurology.* 2003; 61: S19-23.
3. Niculescu MD, Craciunescu CN, Zeisel SH. Gene expression profiling of choline-deprived neural precursor cells isolated from mouse brain. *Brain Res Mol Brain Res.* 2005 Apr 4;134(2):309-22.
4. Niculescu MD, Wu R, Guo Z, da Costa KA, Zeisel SH. Diethanolamine alters proliferation and choline metabolism in mouse neural precursor cells. *Toxicol Sci.* 2007 Apr; 96(2):321-6.
5. Tremper-wells B, Vallano ML. Nuclear calpain regulated Ca²⁺-dependent signaling via proteolysis of nuclear Ca²⁺/calmodulin-dependent protein kinase type IV in cultured neurons. *J Biol Chem.* 2005; 280: 2165-75.
6. Wang X, Wang F, Sy M-S, Ma J. Calpain and other cytosolic proteases can contribute to the degradation of retro-translocated prion protein in the cytosol. *J Biol Chem.* 2005; 280(7): 317-25.
7. Wu J, Holstein JD, Upadhyay G, Lin DT, Conway S, Muller E, Lechleiter JD.

Purinergic receptor-stimulated IP3-mediated Ca²⁺ release enhances neuroprotection by increasing astrocyte mitochondrial metabolism during aging. *J Neurosci.* 2007 Jun 13;27(24):6510-20.

8. Zhang XY, Dinh A, Cronin J, Li SC, Reiser J. Cellular uptake and lysosomal delivery of galactocerebrosidase tagged with the HIV Tat protein transduction domain. *Journal of Neurochemistry.* 2007. (OnlineEarly Articles).

Rat Brain Neuronal

1. Abraham E, Mistry A, Barton D. BD PureCoat Amine Supports Cell Attachment and Differentiation of Neural cells. BD Biosciences.
http://www.bdbiosciences.com/external_file/s/dl/doc/tech_bulletin/live/web_enabled/471.pdf
2. Barghorn S, Nimmrich V, Striebinger A, Krantz C, Keller P, Janson B, Bahr M, Schmidt M, Bitner RS, Harlan J, Barlow E, Ebert U, Hillen H. Globular amyloid β-peptide₁₋₄₂ oligomer – a homogenous and stable neuropathological protein in Alzheimer's disease. *J Neurochem.* 2005; 95(3): 834-47.
3. Borlongan CV, Kaneko Y, Maki M, Yu S, Ali M, Allickson JG, Sanberg CD, Kuzmin-Nichols N, Sanberg PR. Menstrual blood cells display stem cell-like phenotypic markers and exert neuroprotection following transplantation in experimental stroke. *Stem Cells and Development.* 2009 Oct. [Epub ahead of print].
4. Campbell R, Watkins J, Erwann L, Spector S. Differential Induction of Rat Neuronal Excitotoxic Cell Death by Human

- Immunodeficiency Virus Type 1 Clade B and C Tat Proteins. *Aids Research and Human Retroviruses.* 2011 June; 27(6): 647-654.
5. Canals M, Angulo E, Casadó V, Canela EI, Mallol J, Viñals F, Staines W, Tinner B, Hillion J, Agnati L, Fuxé K, Ferré S, Lluis C, Franco R. Molecular mechanisms involved in the adenosine A and A receptor-induced neuronal differentiation in neuroblastoma cells and striatal primary cultures. *J Neurochem.* 2005 Jan;92(2):337-48.
 6. Cellecrticon. Transfection of Dissociated Hippocampal Neurons in Culture. <<http://www.cellecrticon.com/pdf/Dissociate%20Hippocampal%20Neurons%20in%20Culture.pdf>>
 7. Charrier A, Martinez D, Monette R, Comas T, Movileanu R, Py C, Denhoff M, Krantis A, Mealing G. Cell placement and guidance on substrates for neurochip interfaces. *Biotechnol Bioeng.* 2009 Sep 14. [Epub ahead of print].
 8. Chuenkova MV, PereiraPerrin M. A synthetic peptide modeled on PDNF, Chagas' disease parasite neutrotrophic factor, promotes survival and differentiation of neuronal cells through TrkA receptor. *Biochem.* 2005; 44: 15685-94.
 9. Ciofani G, Raffa V, Menciassi A, Micera S, Dario P. A drug delivery system based on alginate microspheres: mass-transport test and in vitro validation. *Biomed Microdevices.* 2007 Jun; 9(3): 395-403.
 10. Ciofani G, Sergi P, Carpaneto J, Micera, S. A hybrid approach for the control of axonal outgrowth: preliminary simulation results. *Med Biol Eng Comput.* 2011 Feb; 49(2): 163-170.
 11. De Felice FG, Wu D, Lambert MP, Fernandez SJ, Velasco PT, Lacor PN, Bigio EH, Jerecic J, Acton PJ, Shughrue PJ, Chen-Dodson E, Kinney GG, Klein WL. Alzheimer's disease-type neuronal tau hyperphosphorylation induced by A beta oligomers. *Neurobiol Aging.* 2008 Sep;29(9):1334-47.
 12. Diaz-Quijada G, Maynard C, Comas T, Monette R, Py C, Krantis A, Mealing G. Surface patterning with chemisorbed chemical cues for advancing neurochip applications. *Ind. Eng. Chem. Res.* 2011;50:10029-10035.
 13. Fernø J, Skrede S, Vik-Mo AO, Håvik B, Steen VM. Drug-induced activation of SREBP-controlled lipogenic gene expression in CNS-related cell lines: marked differences between various antipsychotic drugs. *BMC Neurosci.* 2006 Oct 20; 7:69.
 14. Flueraru M, So R, Willmore WG, Poulter MO, Durst T, Charron M, Wright JS: Cytotoxicity and cytoprotective activity of naphthalenediols in rat cortical neurons. *Chem Res Toxicol.* 2006 Sep;19(9):1221-7.
 15. Gilling KE, Jatzke C, Parsons CG. Agonist concentration dependency of blocking kinetics but not equilibrium block of N-methyl-D-aspartate receptors by memantine. *Neuropharmacology.* 2007 Sep; 53(3):415-20.
 16. Götz P, Fleischer W, Rosenbaum C, Otto F, Siebler M. Neuronal network properties of human teratocarcinoma cell line-derived neurons. *Brain Res.* 2004 Aug 20;1018(1):18-25.
 17. Grunewald M, Johnson S, Lu D, Wang Z, Lomberk G, Albert P, Stockmeier C, Meyer J, Urrutia R, Miczek K, Austin M, Wang J, paul I, Woolverton W, Seo S. Mechanistic role for a novel glucocorticoid-KLF11 (TIEG2) pathway in stress-induced monoamine oxidase A expression. *J. Biol Chem.* 2012;287(29):24195-206.
 18. Haedicke J, Brown C, Naghavi MH. The brain-specific factor FEZ1 is a determinant of neuronal susceptibility to HIV-1 infection. *Proc Natl Acad Sci U S A.* 2009 Aug 18;106(33):14040-5.
 19. Hepler RW, Grimm KM, Nahas DD, Breese R, Dodson EC, Acton P, Keller PM, Yeager M, Wang H, Shughrue P, Kinney G, Joyce JG. Solution state characterization of amyloid beta-derived diffusible ligands. *Biochemistry.* 2006 Dec 26;45(51):15157-67. Epub 2006 Dec 6.
 20. Imam S, et al. Novel Regulation of Parkin Function through c-Abl-Mediated Tyrosine Phosphorylation: Implications for Parkinson's Disease. *The Journal of Neuroscience.* 2011 January;31(1):157-163.
 21. Jacobsen KX, Staines WA. Vibration enhancement of slide-mounted immunofluorescence staining. *J Neurosci Meth.* 2004; 137: 71-7.
 22. Kaehr B, Allen R, Javier DJ, Currie J, Shear JB. Guiding neuronal development with in

- situ microfabrication. PNAS. 2004; 101(46): 16104-08.
23. Kaehr B, Ertas N, Nielson R, Allen R, Hill RT, Plenert M, Shear JB. Direct-write fabrication of functional protein matrixes using a low-cost Q-switched laser. *Anal Chem.* 2006 May 1;78(9):3198-202.
 24. Klusmann A, Fleischer W, Waldhaus A, Siebler M, Mayatepek. Influence of D-arabitol and ribitol on neuronal network activity. *J Inherit Metab Dis.* 2005; 28: 1181-3.
 25. Liu Y, Buck D, Neve K. Novel Interaction of the Dopamine D2 Receptor and the Ca²⁺-Binding Protein S100B: Role in D2 Receptor Function. *Mol Pharmacol.* 2008 August; 74(2): 371-378.
 26. Magalhaes A, et al. CRF receptor 1 regulates anxiety behavior via sensitization of 5-HT2 receptor signaling. *Nature Neuroscience.* 2010; Advance Online Publication.
 27. Manganas L, et al. Magnetic Resonance Spectroscopy Identifies Neural Progenitor Cells in the Live Human Brain. *Science.* 2007; 318(5852):980-985.
 28. Matsukawa N, et al. Therapeutic targets and limits of minocycline neuroprotection in experimental ischemic stroke. *BMC Neuroscience.* 2009;10(126):online publication.
 29. Mok SY, Lim YM, Goh SY: A device to facilitate preparation of high-density neural cell cultures in MEAs. *J Neurosci Methods.* 2009 May 15;179(2):284-91.
 30. Muotri AR, Chu VT, Marchetto MCN, Deng W, Moran JV, Gage FH. Somatic mosaicism in neuronal precursor cells mediated by L1 retrotransposition. *Nature.* 2005; 435: 903-10.
 31. Narayanan U, Nalavadi V, Nakamoto M, Pallas DC, Ceman S, Bassell GJ, Warren ST. FMRP phosphorylation reveals an immediate-early signaling pathway triggered by group I mGluR and mediated by PP2A. *J Neurosci.* 2007 Dec 26;27(52):14349-57.
 32. Narz F, Janhsen S, Keuger U. Efficient DNA transfection of primary CNS neurons using TransMessenger Transfection Reagent. *Qiagen News* 2003 e6.
 33. Otto F, Götz P, Fleischer W, Siebler M. Cryopreserved rat cortical cells develop functional neuronal networks on
 - microelectrode arrays. *J Neurosci Meth.* 2003; 128: 173-81.
 34. Otto F, Illes S, Opatz J, Laryea M, Theiss S, Hartung HP, Schnitzler A, Siebler M, Dihné M. Cerebrospinal fluid of brain trauma patients inhibits in vitro neuronal network function via NMDA receptors. *Ann Neurol.* 2009 Oct;66(4):546-55.
 35. Otto F, Kieseier BC, Götz P, Hartung H-P, Siebler M. The pentapeptide QYNAD does not inhibit neuronal network activity. *Can J Neurosci Sci.* 2005; 32: 344-8.
 36. Pathak S, Cao E, Davidson MC, Jin S, Silva GA. Quantum dot applications to neuroscience: new tools for probing neurons and glia. *J Neurosci.* 2006 Feb 15;26(7):1893-5.
 37. Py C, Martina M, Diaz-Quijada G, Luk C, Martinez D, Denhoff M, Charrier A, Comas T, Monette R, Krantis A, Syed N, Mealing G. From understanding cellular function to novel drug discovery: the role of planar patch -clamp array chip technology. *Frontiers in Pharmacology.* 2011;2(51):16pgs.
 38. Shughrue PJ, Acton PJ, Breese RS, Zhao WQ, Chen-Dodson E, Hepler RW, Wolfe AL, Matthews M, Heidecker GJ, Joyce JC, Villarreal SA, Kinney GG. Anti-ADDL antibodies differentially block oligomer binding to hippocampal neurons. *Neurobiology of Aging.* 2008 May 20; Ahead of Print.
 39. Singh AK, Jiang Y, Gupta S. Effects of Bacterial Toxins on Endothelial Tight Junction In Vitro: A Mechanism-Based Investigation. *Toxicology Mechanisms and Methods.* 2007 July; 17(6): 331-347.
 40. Tremper-Wells B, Vallano ML. Nuclear calpain regulates Ca²⁺-dependent signaling via proteolysis of nuclear Ca²⁺/calmodulin-dependent protein kinase type IV in cultured neurons. *J Biol Chem.* 2005 Jan 21;280(3):2165-75.
 41. Usher L, et al. A Chemical Screen Identified Novel Compounds That Overcome Glial-Mediated Inhibition of Neuronal Regeneration. *The Journal of Neuroscience.* 2010 March; 30(13):4693-4706.
 42. Xu F, et al. Antidepressant fluoxetine suppresses neuronal growth from both vertebrate and invertebrate neurons and perturbs synapse formation between

- Lymnaea* neurons. European Journal of Neuroscience. 2010 January; 31:994-1005.
43. Yamada S, Uchimura E, Ueda T, Nomura T, Fujita S, Matsumoto K, Funeriu DP, Miyake M, Miyake J. Identification of twinfilin-2 as a factor involved in neurite outgrowth by RNAi-based screen. Biochem Biophys Res Commun. 2007 Nov; 363(4):926-30.
- Rat Dorsal Root Ganglion Neuronal**
1. Abbadie C, et al. Analgesic Effects of a Substituted N-Triazole Oxindole (TROX-1), a State Dependant Ca_2 Calcium Channel Blocker. J Pharmacol Exp Therapeutics. 2010 Aug;334(2):545-555.
 2. Anesti AM, Peeters PJ, Royaux I, Coffin RS. Efficient delivery of RNA Interference to peripheral neurons *in vivo* using herpes simplex virus. Nucleic Acids Res. 2008 Aug;36(14):e86.
 3. Antinone S, Zaichick S, Smith G. Resolving the assembly state of herpes simplex virus during axon transport by live-cell imaging. Journal of Virology. 2010. 84(24):13019-13030.
 4. BD Bioscience. Quantitative High Content Analysis of Neurite Outgrowth. <<http://www.bdbiosciences.com/pdfs/whitePapers/07-A790030-19A.pdf>>
 5. Carlin K, Bui T, Dai Y, Brownstone R. Staircase Currents in Motoneurons: Insight into the Spatial Arrangement of Calcium Channels in the Dendritic Tree. The Journal of Neuroscience. 2009 April;29(16): 5343-5353.
 6. Chuenkova MV, PereiraPerrin M. A synthetic peptide modeled on PDNF, Chagas' disease parasite neurotrophic factor, promotes survival and differentiation of neuronal cells through TrkA receptor. Biochem. 2005; 44: 15685-94.
 7. Gruber JV, Holtz R. Examining communication between ultraviolet (UV)-damaged cutaneous nerve cells and epidermal keratinocytes *in vitro*. Toxicol Ind Health. 2009 May-Jun;25(4-5):225-30.
 8. Kamishina H, Cheeseman JA, Clemons RM. The effects of canine bone marrow stromal cells on neuritogenesis from dorsal root ganglion neurons *in vitro*. Vet Res Commun. 2009 Oct;33(7):645-57. Epub 2009 Mar 3.
 9. Matsuoka Y, Yokoyama M, Kobayashi H, Omori M, Itano Y, Morita K, Mori H, Nakanishi T. Expression profiles of BDNF splice variants in cultured DRG neurons stimulated with NGF. Biochem Biophys Res Commun. 2007 Oct 26;362(3):682-8.
 10. Muffley L, pan S, Smith A, Ga M, Hocking A, Gibran N. Differentiation state determines neural effects on microvascular endothelial cells. Exp Cell Res. 2012;318(16):2085-93.
 11. Murashov AK, Chintalgattu V, Islamov RR, Lever TE, Pak ES, Sierpinska PL, Katwa LC, Van Scott MR. RNAi pathway is functional in peripheral nerve axons. FASEB J. 2007 Mar;21(3):656-70.
 12. Riera CE, Menozzi-Smarrito C, Affolter M, Michlig S, Munari C, Robert F, Vogel H, Simon SA, Coutre J. Compounds from Sichuan and Melegueta peppers activate, covalently and non-covalently, TRPA1 and TRPV1 channels. British Journal of Pharmacology. 2009;157:1398-1409.
 13. Riera CE, Vogel H, Simon SA, le Coutre J. Artificial sweeteners and salts producing a metallic taste sensation activate TRPV1 receptors. Am J Physiol Regul Integr Comp Physiol. 2007 Aug;293(2):R626-34.
 14. Snyder A, Wisner TW, Johnson DC. Herpes simplex virus capsids are transported in neuronal axons without an envelope containing the viral glycoproteins. J Virol. 2006 Nov; 80(22):11165-77.
 15. Takei Y, Laskey R. Tumor necrosis factor alpha regulates responses to nerve growth factor, promoting neural cell survival but suppressing differentiation of neuroblastoma cells. Mol Biol Cell. 2008 Mar;19(3):855-64.
 16. Taneda K, Tominaga M, Tengara S, Ogawa H, Takamori K. Neurotropin inhibits both capsaicin-induced substance P release and nerve growth factor-induced neurite outgrowth in cultured rat dorsal root ganglion neurons. Clinical and Experimental Dermatology. 2009;35: 73-77.
 17. Tengara, S et al. Keratinocyte-derived anosmin-1, an extracellular glycoprotein encoded by the X-linked Kallmann syndrome gene, is involved in modulation of epidermal nerve density in atopic dermatitis. Journal of Dermatological Science. 2010;58:64-71.
 18. Tominaga M, Kamo A, Tengara S, Ogawa H, Takamori K. *In vitro* model for

penetration of sensory nerve fibres on a Matrigel basement membrane: implications for possible application to intractable pruritus. *British Journal of Dermatology.* 2009;161:1028-1037.

Rat Astrocytes

1. Abraham E, Mistry A, Barton D. BD PureCoat Amine Supports Cell Attachment and Differentiation of Neural cells. *BD Biosciences.* <http://www.bdbiosciences.com/external_files/dl/doc/tech_bulletin/live/web_enabled/471.pdf>
2. Gaillard PJ, de Boer AG. 2B-Trans technology: targeted drug delivery across the blood-brain barrier. *Methods Mol Biol.* 2008; 437: 161-75.
3. Hedlund E, Pruszak J, Ferree A, Viñuela A, Hong S, Isacson O, Kim KS. Selection of embryonic stem cell-derived enhanced green fluorescent protein-positive dopamine neurons using the tyrosine hydroxylase promoter is confounded by reporter gene expression in immature cell populations. *Stem Cells.* 2007 May;25(5):1126-35.
4. Hedlund E, Pruszak J, Lardaro T, Ludwig W, Viñuela A, Kim KS, Isacson O. Embryonic stem cell-derived Pitx3-enhanced green fluorescent protein midbrain dopamine neurons survive enrichment by fluorescence-activated cell sorting and function in an animal model of Parkinson's disease. *Stem Cells.* 2008 Jun;26(6):1526-36.
5. Matsukawa N, et al. Therapeutic targets and limits of minocycline neuroprotection in experimental ischemic stroke. *BMC Neuroscience.* 2009;10(126):online publication.
6. Nishimura M, Doi K, Kishimoto S, Koshitani O, Naito S, Yamauchi A. Pharmacological assessment of ARTCEREB irrigation and perfusion solution for cerebrospinal surgery using primary cultures of rat brain cells. *The Journal of Toxicological Sciences.* 2010;35(4):447-457.
7. Parmentier-Batteur S, Finger E, Krishnan R, Rajapakse H, Sanders J, Kandpal G, Zhu H, Moore K, Regan C, Sharma S, Hess F, Williams T, Reynolds I, Vacca J, Mark R, Nantermet P. Attenuation of scratch-induced reactive astrogliosis by novel EphA4 kinase

inhibitors. *J. Neurochem.* 2011;118:1016-1031.

8. Pathak S, Cao E, Davidson MC, Jin S, Silva GA. Quantum dot applications to neuroscience: new tools for probing neurons and glia. *J Neurosci.* 2006 Feb 15;26(7):1893-5
9. Rao JS, Ertley RN, Lee HJ, DeMar JC Jr, Arnold JT, Rapoport SI, Bazinet RP. n-3 polyunsaturated fatty acid deprivation in rats decreases frontal cortex BDNF via a p38 MAPK-dependent mechanism. *Mol Psychiatry.* 2007 Jan; 12(1):36-46.
10. Singh AK, Jiang Y, Gupta S. Effects of Bacterial Toxins on Endothelial Tight Junction In Vitro: A Mechanism-Based Investigation. *Toxicology Mechanisms and Methods.* 2007 July; 17(6): 331-347.
11. Wuest D, Lee K. Optimization of endothelial cell growth in a murine in vitro blood-brain barrier model. *Biotechnol. J.* 2012;7:9 pgs.

* References not specifically citing the use of Lonza cells, media, or reagents in their research.

+ Denotes sections containing only the articles published within the last ten years.