

Majeska RJ, Rodan SB, Rodan GA. 1980. Parathyroid hormone-responsive clonal cell lines from rat osteosarcoma. *Endocrinology* 107:1494-503.

Majeska RJ, Rodan GA. 1982a. The Effect of  $1,25(\text{OH})_2\text{D}_3$  on Alkaline Phosphatase in Osteoblastic Osteosarcoma Cells. *J Biol Chem* 257:3362-3365.

Majeska RJ, Rodan GA. 1982b. Alkaline phosphatase inhibition by parathyroid hormone and isoproterenol in a clonal rat osteosarcoma cell line. Possible mediation by cyclic AMP. *Calcif Tissue Int* 34:59-66.

Maniatis T, Fritsch EF, Sambrook J. 1982. Electroelution into troughs. In *Molecular cloning: A Laboratory Manual*, 1 st ed., Cold Springs Harbor Laboratory, Cold Springs Harbor, NY, p. 167.

Matsuda T, Takuma K, Baba A. 1997.  $\text{Na}^+$ - $\text{Ca}^{2+}$  exchanger: physiology and pharmacology. *Jpn J Pharmacol* 74:1-20.

McDonnell MW, Simon MN, Studier FW. 1977. Analysis of restriction fragments of T7 DNA and determination of molecular weights by electrophoresis in neutral and alkaline gels. *J Mol Biol* 110:119-146.

Mery L, Strauss B, Dufour JF, Krause KH, Hoth M. 2002. The PDZ-interacting domain of TRPC4 controls its localization and surface expression in HEK293 cells. *J Cell Sci* 115:3497-508.

Miura Y, Henquin JC, Gilon P. 1997. Emptying of intracellular  $\text{Ca}^{2+}$  stores stimulates  $\text{Ca}^{2+}$  entry in mouse pancreatic beta-cells by both direct and indirect mechanisms. *J Physiol* 503: 387-398.

Mizuno N, Kitayama S, Saishin Y, Shimada S, Morita K, Mitsuhata C, Kurihara H, Dohi T. 1999. Molecular cloning and characterization of rat trp homologues from brain. *Mol Brain Res* 64:41-51.

Mlinar B, Enyeart JJ. 1993. Block of current through T-type calcium channels by trivalent metal cations and nickel in neural rat and human cells. *J Physiol* 469:639-652.

Montell C, Jones K, Hafen E, Rubin G. 1985. Rescue of the *Drosophila* phototransduction mutation *trp* by germline transformation. *Science* 230:1040-1043.

Montell C, Rubin GM. 1989. Molecular characterization of the *Drosophila* *trp* locus: a putative integral membrane protein required for phototransduction. *Neuron* 2:1313-1323.

Montell C. 2001. Physiology, phylogeny, and functions of the TRP superfamily of cation channels. *Science's STKE* (<http://stke.sciencemag.org/cgi/content/full/OCsigtrans;2001/90/re1>).

Montell C, Birnbaumer L, Flockerzi V. 2002a. The TRP channels, a remarkably functional family. *Cell* 108:595-598.

Montell C, Birnbaumer L, Flockerzi V, Bindels RJ, Bruford EA, Caterina MJ, Clapham DE, Harteneck C, Heller S, Julius D, Kojima I, Mori Y, Penner R, Prawitt D, Scharenberg AM, Schultz G, Shimizu N, Zhu MX. 2002b. A unified nomenclature for the superfamily of TRP cation channels. *Mol Cell* 9:229-231.

Mori Y, Takada N, Okada T, Wakamori M, Imoto K, Wanifuchi H, Oka H, Oba A, Ikenaka K, Kurosaki T. 1998. Differential distribution of TRP  $Ca^{2+}$  channel isoforms in mouse brain. *Neuroreport* 9:507-515.

Ohki G, Miyoshi T, Murata M, Ishibashi K, Imai M, Suzuki M. 2000. A calcium-activated cation current by an alternatively spliced form of *Trp3* in the heart. *J Biol Chem* 275:39055-39060.

Okamoto Y, Ninomiya H, Miwa S, Masaki T. 1995. Capacitative  $Ca^{2+}$  entry in human platelets is resistant to nitric oxide. *Biochem Biophys Res Commun* 212:90-96.

O'Tousa JE, Baehr W, Martin RL, Hirsh J, Pak WL, Applebury ML. 1985. The *Drosophila* *ninaE* gene encodes an opsin. *Cell* 40:839-850.

Palade P, Dettbarn C, Brunder D, Stein P, Hals G. 1989. Pharmacology of calcium release from sarcoplasmic reticulum. *J Bioenerg Biomembr* 21:295-320.

Parekh AB, Fleig A, Penner R. 1997. The store-operated calcium current  $I_{CRAC}$ : nonlinear activation by  $InsP_3$  and dissociation from calcium release. *Cell* 89:973-980.

Parekh AB, Penner R. 1997. Store depletion and calcium influx. *Physiol Rev* 77:901-930.

- Patel KV, Schrey MP. 1992. Evidence for a role for protein kinase C in the modulation of bombesin-activated cellular signalling in human breast cancer cells. *Mol Cell Endocrinol* 85:215-225.
- Philipp S, Flockerzi V. 1997. Molecular characterization of a novel human PDZ domain protein with homology to INAD from *Drosophila melanogaster*. *FEBS Lett* 413:243-248.
- Philipp S, Wissenbach U, Flockerzi V. 2000. *Molecular Biology of Calcium Channels*. Boca Raton, USA, CRC Press.
- Pozzan T, Rizzuto R, Volpe P, Meldolesi J. 1994. Molecular and cellular physiology of intracellular calcium stores. *Phys Rev* 74:595-636.
- Preston GA, Barrett JC, Biermann JA, Murphy E. 1997. Effects of alterations in calcium homeostasis on apoptosis during neoplastic progression. *Cancer Res* 57:537-542.
- Preuss KD, Noller JK, Krause E, Gobel A, Schulz I. 1997. Expression and characterization of a trpl homolog from rat. *Biochem Biophys Res Commun* 240:167-172.
- Putney JW Jr. 1986. A model for receptor-regulated calcium entry. *Cell Calcium* 7:1-12.
- Putney JW Jr. 1990. Capacitative calcium entry revisited. *Cell Calcium* 11:611-624.
- Putney JW Jr, Bird GS. 1993. The inositol phosphate-calcium signaling system in nonexcitable cells. *Endocr Rev* 14:610-631.
- Putney JW Jr. 1997. *Capacitative Calcium entry*. Austin Texas: Landes Biomedical Publishing.
- Putney JW Jr. 1999. TRP, inositol 1,4,5-trisphosphate receptors, and capacitative calcium entry. *Proc Natl Acad Sci USA* 96:14669-14671.
- Putney JW Jr, Broad LM, Braun, FJ, Lievreumont JP, Bird GS. 2001. Mechanisms of capacitative calcium entry. *J Cell Sci* 114:2223-2229.
- Kurien BT, Scofield RH. 2002. Extraction of nucleic acid fragments from gels. *Anal Biochem* 302:1-9.
- Riccio A, Medhurst AD, Mattei C, Kelsell RE, Calver AR, Randall AD, Benham CD, Pangalos MN. 2002. mRNA distribution analysis of human TRPC family in CNS and peripheral tissues. *Brain Res Mol Brain Res* 109:95-104.

- Rohacs T, Bago A, Deak F, Hunyady L, Spat A. 1994. Capacitative  $\text{Ca}^{2+}$  influx in adrenal glomerulosa cells: possible role in angiotensin II response. *Am J Physiol* 267:C1246-52.
- Said Ahmed MA, Walker LM, Publicover SJ, El Haj AJ. 2000. Hormonal regulation of  $[\text{Ca}^{2+}]_i$  in periosteal-derived osteoblasts: Effects of parathyroid hormone,  $1,25(\text{OH})_2\text{D}_3$  and prostaglandin E2. *J Cell Physiol* 183:163-171.
- Sakaki Y, Sugioka M, Fukuda Y, Yamashita M. 1997. Capacitative  $\text{Ca}^{2+}$  influx in the neural retina of chick embryo. *J Neurobiol* 1:62-68.
- Sarosi GA, Barnhart DC, Turner DJ, Mulholland MW. 1998. Capacitative  $\text{Ca}^{2+}$  entry in enteric glia induced by thapsigargin and extracellular ATP. *Am J Physiol* 275:G550-G555.
- Scott K, Becker A, Sun Y, Hardy R, Zuker C. 1995. Gq protein function in vivo: genetic dissection of its role in photoreceptor cell physiology. *Neuron* 15:919-927.
- Schofield GG, Mason MJ. 1996. A  $\text{Ca}^{2+}$  current activated by release of intracellular  $\text{Ca}^{2+}$  stores in rat basophilic leukemia cells (RBL-1). *J Membr Biol* 153:217-231.
- Sedova M, Blatter LA. 1999. Dynamic regulation of  $[\text{Ca}^{2+}]_i$  by plasma membrane  $\text{Ca}^{2+}$ -ATPase and  $\text{Na}^+/\text{Ca}^{2+}$  exchange during capacitative  $\text{Ca}^{2+}$  entry in bovine vascular endothelial cells. *Cell Calcium* 25:333-343.
- Sergeev IN, Rhoten WB. 1998. Regulation of intracellular calcium in human breast cancer cells. *Endocrine* 9:321-327.
- Shibukawa Y, Suzuki T. 2003.  $\text{Ca}^{2+}$  signaling mediated by IP3-dependent  $\text{Ca}^{2+}$  releasing and store-operated  $\text{Ca}^{2+}$  channels in rat odontoblasts. *J Bone Miner Res* 18:30-38.
- Shieh BH, Niemeyer B. 1995. A novel protein encoded by the *InaD* gene regulates recovery of visual transduction in *Drosophila*. *Neuron* 14:201-210.
- Shieh BH, Zhu MY. 1996. Regulation of the TRP  $\text{Ca}^{2+}$  channel by *INAD* in *Drosophila* photoreceptors. *Neuron* 16:991-998.
- Smith DP, Ranganathan R, Hardy RW, Marx J, Tsuchida T, Zuker CS. 1991. Photoreceptor deactivation and retinal degeneration mediated by a photoreceptor-specific protein kinase C. *Science* 254:1478-1484.

- Snitsarev VA, Taylor CW. 1999. Overshooting cytosolic  $\text{Ca}^{2+}$  signals evoked by capacitative  $\text{Ca}^{2+}$  entry result from delayed stimulation of a plasma membrane  $\text{Ca}^{2+}$  pump. *Cell Calcium* 25:409-417.
- Sokolova IA, Cowan KH, Schneider E. 1995.  $\text{Ca}^{2+}/\text{Mg}^{2+}$ -dependent endonuclease activation is an early event in VP-16-induced apoptosis of human breast cancer MCF7 cells in vitro. *Biochim Biophys Acta* 1266:135-142.
- Takemura H, Putney JW Jr. 1989. Capacitative calcium entry in parotid acinar cells. *Biochem J* 258:409-412.
- Takeuchi K, Guggino S. 1996.  $24\text{R},25\text{-(OH)}_2$  Vitamin  $\text{D}_3$  Inhibits  $1\alpha,25\text{-(OH)}_2$  Vitamin  $\text{D}_3$  and Testosterone Potentiation of Calcium Channels in Osteosarcoma Cells. *J Biol Chem* 271:33335-33343.
- Tang Y, Tang J, Chen Z, Trost C, Flockerzi V, Li M, Ramesh V, Zhu MX. 2000. Association of mammalian TRPC4 and phospholipase C isozymes with a PDZ domain-containing protein, NHERF. *J Biol Chem* 275:37559-37564.
- Taylor CW, Broad LM. 1998. Pharmacological analysis of intracellular  $\text{Ca}^{2+}$  signalling: problems and pitfalls. *Trend Pharmacol Sci* 19:370-375.
- Tesfai Y, Brereton HM, Barritt GJ. 2001. A diacylglycerol-activated  $\text{Ca}^{2+}$  channel in PC12 cells (an adrenal chromaffin cell line) correlates with expression of the TRP-6 (transient receptor potential) protein. *Biochem J* 358:717-726.
- Thastrup O, Cullen PJ, Drobak BK, Hanley MR, Dawson AP. 1990. Thapsigargin, a tumor promoter, discharges intracellular  $\text{Ca}^{2+}$  stores by specific inhibition of the endoplasmic reticulum  $\text{Ca}^{2+}$ -ATPase. *Proc Natl Acad Sci U S A* 87:2466-2470.
- Trebak M, Bird GS, McKay RR, Putney JW Jr. 2002. Comparison of human TRPC3 channels in receptor-activated and store-operated modes. Differential sensitivity to channel blockers suggests fundamental differences in channel composition. *J Biol Chem* 277:21617-21623.
- Ullmer C, Schmuck K, Figge A, Lubbert H. 1998. Cloning and characterization of MUPP1, a novel PDZ domain protein. *FEBS Lett* 424:63-68.

Van Leeuwen JP, Birkenhager JC, Buurman CJ, Schilte JP, Pols HA. 1990. Functional involvement of calcium in the homologous up-regulation of the 1,25-dihydroxyvitamin D<sub>3</sub> receptor in osteoblast-like cells. *FEBS Lett* 270:165-167.

Vannier B, Zhu X, Brown D, Birnbaumer L. 1998. The membrane topology of human transient receptor potential 3 as inferred from glycosylation-scanning mutagenesis and epitope immunocytochemistry. *J Biol Chem* 273:8675-8679.

Vazquez G, De Boland AR, Boland R. 1997. Stimulation of Ca<sup>2+</sup> release-activated Ca<sup>2+</sup> channels as a potential mechanism involved in non-genomic 1,25(OH)<sub>2</sub>-vitamin D<sub>3</sub>-induced Ca<sup>2+</sup> entry in skeletal muscle cells. *Biochem Biophys Res Commun* 239:562-565.

Vazquez G, Boland AR de, Boland R. 1998. 1,25-dihydroxy-vitamin-D<sub>3</sub>-induced store-operated Ca<sup>2+</sup> influx in skeletal muscle cells. Modulation by phospholipase C, protein kinase C, and tyrosine kinases. *J Biol Chem* 273:33954-33960.

Vazquez G, Boland AR de, Boland R. 2000. Involvement of calmodulin in 1 $\alpha$ ,25-dihydroxyvitamin D<sub>3</sub> stimulation of store-operated Ca<sup>2+</sup> influx in skeletal muscle cells. *J Biol Chem* 275:16134-16138.

Vazquez G, Lièvremon JP, Bird GSJ, Putney JW Jr. 2001. Trp3 forms both both inositol trisphosphate receptor-dependent and independent store-operated cation channels in DT40 avian B-lymphocytes. *Proc Natl Acad Sci USA* 98:11777–11782.

Vennekens R, Voets T, Bindels RJ, Droogmans G, Nilius B. 2002. Current understanding of mammalian TRP homologues. *Cell Calcium* 31:253-264.

Wiemann M, Busselberg D, Schirmacher K, Bingmann D. 1998. A calcium release activated calcium influx in primary cultures of rat osteoblast-like cells. *Calcif Tissue Int* 63:154-159.

Woods DF, Bryant PJ. 1991. The discs-large tumor suppressor gene of *Drosophila* encodes a guanylate kinase homolog localized at septate junctions. *Cell* 66:451-464.

Woods DF, Bryant PJ. 1993. ZO-1, DlgA and PSD-95/SAP90: homologous proteins in tight, septate and synaptic cell junctions. *Mech Dev* 44:85-89.

Wu X, Babnigg G, Vilerreal ML. 2000. Functional significance of human trp1 and trp3 in store-operated Ca<sup>2+</sup> entry in HEK-293 cells. *Am J Physiol Cell Physiol* 278:C526-C536.

Yue, L., Peng, J.B., Hediger, M.A. and Clapham, D.E. 2001 CaT1 manifests the pore properties of the calcium-release-activated calcium channel. *Nature* 410:705-709.

Zhu X, Jiang M, Peyton M, Boulay G, Hurst R, Stefani E, Birnbaumer L. 1996. trp, a novel mammalian gene family essential for agonist-activated capacitative Ca<sup>2+</sup> entry. *Cell* 85:661-671.

Zhu X, Birnbaumer L. 1998. Calcium Channels Formed by Mammalian Trp Homologues. *News Physiol Sci* 13:211-217.

Zhu X, Jiang M, Birnbaumer L. 1998. Receptor-activated Ca<sup>2+</sup> influx via human Trp3 stably expressed in human embryonic kidney (HEK)293 cells. Evidence for a non-capacitative Ca<sup>2+</sup> entry. *J Biol Chem* 273:133-142.

Zitt C, Halaszovich CR, Luckoff A. 2002. The TRP family of cation channels: probing and advancing the concepts on receptor-activated calcium entry. *Prog Neurobiol* 66:243-264.

Zuker CS, Cowman AF, Rubin GM. 1985. Isolation and structure of a rhodopsin gene from *D.melanogaster*. *Cell* 40:851-858.