



## Human Calcium Regulation Primer Library

**Catalog No:** HCAR-1  
**Supplier:** RealTimePrimers  
**Lot No:** XXXXX  
**Supplied as:** solid  
**Stability:** store at -20°C

### Description

Contains 88 primer sets directed against human calcium regulation related genes and 8 housekeeping gene primer sets. Provided in a 96-well microplate (20 ul - 10 uM). Perform up to 100 PCR arrays (based on 20 ul assay volume per reaction). Just add cDNA template and SYBR green master mix.

### Gene List:

- ADCY1 adenylate cyclase 1
- ADCY2 adenylate cyclase 2
- ADCY3 adenylate cyclase 3
- ADCY4 adenylate cyclase 4
- ADCY5 adenylate cyclase 5
- ADRA1A adrenoceptor alpha 1A
- ADRA1B adrenoceptor alpha 1B
- ADRA1D In multiple Geneids
- ADRB1 adrenoceptor beta 1
- ADRB2 adrenoceptor beta 2, surface
- ADRB3 adrenoceptor beta 3
- ANXA6 annexin A6
- ATP1A4 ATPase, Na<sup>+</sup>/K<sup>+</sup> transporting, alpha 4 polypeptide
- ATP1B1 ATPase, Na<sup>+</sup>/K<sup>+</sup> transporting, beta 1 polypeptide
- ATP1B2 ATPase, Na<sup>+</sup>/K<sup>+</sup> transporting, beta 2 polypeptide
- ATP1B3 ATPase, Na<sup>+</sup>/K<sup>+</sup> transporting, beta 3 polypeptide
- ATP2A2 ATPase, Ca<sup>++</sup> transporting, cardiac muscle, slow twitch 2
- ATP2A3 ATPase, Ca<sup>++</sup> transporting, ubiquitous
- ATP2B1 ATPase, Ca<sup>++</sup> transporting, plasma membrane 1
- ATP2B2 ATPase, Ca<sup>++</sup> transporting, plasma membrane 2
- ATP2B3 ATPase, Ca<sup>++</sup> transporting, plasma membrane 3
- CACNA1A calcium channel, voltage-dependent, P/Q type, alpha 1A subunit
- CACNA1B calcium channel, voltage-dependent, N type, alpha 1B subunit
- CACNA1C calcium channel, voltage-dependent, L type, alpha 1C subunit
- CACNA1D calcium channel, voltage-dependent, L type, alpha 1D subunit
- CACNA1E calcium channel, voltage-dependent, R type, alpha 1E subunit
- CACNA1S calcium channel, voltage-dependent, L type, alpha 1S subunit
- CACNB1 calcium channel, voltage-dependent, beta 1 subunit
- CACNB3 calcium channel, voltage-dependent, beta 3 subunit
- CALM1 calmodulin 1 (phosphorylase kinase, delta)
- CALM2 calmodulin 2 (phosphorylase kinase, delta)
- CALM3 calmodulin 3 (phosphorylase kinase, delta)
- CALR calreticulin
- CAMK2A calcium/calmodulin-dependent protein kinase II alpha
- CAMK2B calcium/calmodulin-dependent protein kinase II beta
- CASQ1 calsequestrin 1 (fast-twitch, skeletal muscle)
- CASQ2 calsequestrin 2 (cardiac muscle)
- CHRM1 cholinergic receptor, muscarinic 1
- CHRM2 cholinergic receptor, muscarinic 2
- CHRM3 cholinergic receptor, muscarinic 3
- CHRM4 cholinergic receptor, muscarinic 4
- CHRM5 cholinergic receptor, muscarinic 5
- FXD2 FXD domain-containing ion transport regulator 2
- GJA1 gap junction protein, alpha 1, 43kDa
- GJA3 gap junction protein, alpha 3, 46kDa
- GJA4 gap junction protein, alpha 4, 37kDa
- GJA5 gap junction protein, alpha 5, 40kDa
- GJB1 gap junction protein, beta 1, 32kDa
- GJB2 gap junction protein, beta 2, 26kDa
- GJB3 gap junction protein, beta 3, 31kDa
- GNA11 guanine nucleotide binding protein (G protein), alpha 11 (Gq class)
- GNAI1 guanine nucleotide binding protein (G protein), alpha inhibiting activity polypeptide 1



- GNAI2 guanine nucleotide binding protein (G protein), alpha inhibiting activity polypeptide 2
- GNAI3 guanine nucleotide binding protein (G protein), alpha inhibiting activity polypeptide 3
- GNAQ guanine nucleotide binding protein (G protein), q polypeptide
- GNAS GNAS complex locus
- GRK4 G protein-coupled receptor kinase 4
- GRK5 G protein-coupled receptor kinase 5
- GRK6 G protein-coupled receptor kinase 6
- ITPR1 inositol 1,4,5-trisphosphate receptor, type 1
- ITPR2 inositol 1,4,5-trisphosphate receptor, type 2
- KCNB1 potassium channel, voltage gated Shab related subfamily B, member 1
- KCNJ3 potassium channel, inwardly rectifying subfamily J, member 3
- KCNJ5 potassium channel, inwardly rectifying subfamily J, member 5
- PLCB3 phospholipase C, beta 3 (phosphatidylinositol- specific)
- PLN phospholamban
- PRKACA protein kinase, cAMP-dependent, catalytic, alpha
- PRKACB protein kinase, cAMP-dependent, catalytic, beta
- PRKAR1A protein kinase, cAMP-dependent, regulatory, type I, alpha
- PRKAR1B protein kinase, cAMP-dependent, regulatory, type I, beta
- PRKAR2A protein kinase, cAMP-dependent, regulatory, type II, alpha
- PRKAR2B protein kinase, cAMP-dependent, regulatory, type II, beta
- PRKCA Protein kinase C, alpha
- PRKCD protein kinase C, delta
- PRKCE protein kinase C, epsilon
- PRKCG protein kinase C, gamma
- RGS1 regulator of G-protein signaling 1
- RGS2 regulator of G-protein signaling 2
- RGS3 regulator of G-protein signaling 3
- RGS4 regulator of G-protein signaling 4
- RGS5 regulator of G-protein signaling 5
- RYR1 ryanodine receptor 1 (skeletal)
- RYR2 ryanodine receptor 2 (cardiac)
- RYR3 ryanodine receptor 3
- SLC8A1 solute carrier family 8 (sodium/calcium exchanger), member 1
- SLC8A3 solute carrier family 8 (sodium/calcium exchanger), member 3
- YWHAE tyrosine 3-monooxygenase/tryptophan 5- monooxygenase activation protein, epsilon
- YWHAZ tyrosine 3-monooxygenase/tryptophan 5- monooxygenase activation protein, zeta
- ACTB Actin, beta
- B2M Beta-2-microglobulin
- GAPDH Glyceraldehyde-3-phosphate dehydrogenase
- GUSB Glucuronidase, beta
- HPRT1 Hypoxanthine phosphoribosyltransferase 1
- Pgk1 Phosphoglycerate kinase 1
- PPIA Peptidylprolyl isomerase A
- RPL13A Ribosomal protein L13a

### Usage

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