

## Human Cytoskeleton Regulators PCR Array

### Actin Filaments:

Interacting Proteins: ACTR2, ACTR3, ARPC1B, ARPC2, ARPC3, ARPC4, ARPC5, CALD1, CDC42EP3, CFL1, CYFIP1,

CYFIP2, DIAPH1, DSTN, EZR, FSCN2, GSN, IQGAP2, MACF1, PFN2, RDX, SSH1, SSH2, VASP, WASF1.

Organization & Biogenesis: ARFIP2, ARHGDIIB, ARHGEF11, ARPC4, CASK, CDC42, CDC42BPA, ARAP1, CFL1, CRK, DIAPH1, DSTN, EZR, FSCN2, GSN, IQGAP1, LIMK1, LIMK2, NCK1, PFN2, RDX, RHOA, ROCK1, SSH1, SSH2.

Polymerization / Depolymerization: ACTR3, ARHGAP6, ARPC1B, ARPC2, ARPC3, ARPC4, ARPC5, CDC42EP2, DSTN, FNBP1L, GSN, NCK1, NCK2, PFN2, PIKFYVE, RAC1, WAS, WASF1, WASL.

Cortical Cytoskeleton: ARFIP2, CLASP1, CTTN, DSTN, EZR, LLGL1, MAPRE1.

### Microtubules:

Interacting Proteins: CLASP1, CLASP2, CLIP1, CLIP2, MACF1, MAP4, MAPRE1, MAPRE2, MAPT, MID1, RACGAP1, STMN1.

Organization & Biogenesis: CLASP1, MAPT, MID1, PHLDB2, STMN1.

Polymerization / Depolymerization: CLASP1, CLASP2, MAP4, MAPRE1, MAPRE2, MAPT, STMN1.

Spindle Organization & Biogenesis: AURKA, AURKB, CLASP1, CLASP2, CLIP1, MAPRE1, RACGAP1.

### Cell Projections:

Axons & Dendrites: BAIAP2, CDK5, CDK5R1, CYFIP1, CYFIP2, MAPT.

Filopodia: BAIAP2, CDC42, CDK5, ARAP1, EZR, MSN, RDX.

Growth Cones: CDK5, CDK5R1, MAPT.

Lamellipodia: ACTR3, ARFIP2, ARPC5, CDK5, CTTN, CYFIP1, CYFIP2, NCK1, PPP1R12A, PPP1R12B, RAC1, RDX, WASL.

Microvilli: EZR, MSN, RDX.

Pseudopodia: CDC42, CDC42EP2.

Ruffles: ARFIP2, CTTN, CYFIP1, CYFIP2, EZR, RAC1, RDX.

**Cell Shape, Size, Polarity, Morphogenesis:** ARHGEF11, CDC42, CDC42EP2, CDC42EP3, ARAP1, CLASP1, CLASP2, CYFIP1, CYFIP2, EZR, LLGL1, MARK2, MYLK2, SSH1.

**Cell Motility / Migration:** ACTR2, ACTR3, ARFIP2, ARHGDI $\beta$ , ARHGEF11, ARPC1B, ARPC2, ARPC3, ARPC5, CALD1, CDK5, CDK5R1, ARAP1, DSTN, MSN, NCK1, PAK4, RAC1, ROCK1, WASF1, WASL.

**Cell Cycle & Cell Division:**

Mitosis: AURKA, AURKB, CCNA1, CCNB2, CIT, CLASP1, CLASP2, CLIP1, MAPRE1, MAPRE2.

Cytokinesis: ARHGEF11, AURKB, AURKC, DSTN, RACGAP1, ROCK1.

**Cytoskeleton Adaptor Activity:** BAIAP2, MSN, NCK1, NCK2, PAK1.

**Calmodulin / Calcineurin:** CALD1, CALM1, CASK, IQGAP1, IQGAP2, MYLK, MYLK2, PPP3CA, PPP3CB.

**G-Protein Signaling:** ARFIP2, ARHGAP6, ARHGDI $\beta$ , ARHGEF11, CDC42, CDC42EP2, ARAP1, CFL1, CIT, CYFIP1, CYFIP2, DIAPH1, IQGAP1, IQGAP2, LIMK1, LIMK2, MAPK13, RAC1, RACGAP1, RHOA, ROCK1, TIAM1, WAS, WASL.

**Rasases & Phosphatases:** AURKA, AURKB, AURKC, CASP8, CD42BPF, CDKN1, CIT, LIMK1, LIMK2, MAP3K11, MAPK13, MARK2, MYLK, MYLK2, PAK1, PAK4, PPP1R12A, PPP1R12B, PPP3CA, PPP3CB, ROCK1, SCD1, SCD2