

## Human Alzheimer's Disease PCR Array

### **Beta-Amyloid Generation, Oligomerization, Clearance, & Degradation:**

Secretases: ADAM9, APH1A, BACE1, BACE2, CTSB, NCSTN, PSEN1, PSEN2.

Other Peptidases: IDE, PLAT (tPA), PLAU (uPA), PLG.

Endocytosis: APLP1, APP, LRP1, LRP6, LRP8.

Other Genes: A2M, ACHE, APBB1, APBB2, APOE, BCHE, UBQLN1.

**Cytoskeleton Reorganization:** APOE, MAP2, MAPT, PKP4, PRKCI.

**Synaptic Formation:** ACHE, APBA1, APBB1, APBB2, APOE, BDNF, CHAT.

**Lipid Metabolism:** ABCA1, APOA1, APOE, CLU, HSD17B10 (HADH2), INS, LPL, LRP1, LRP8, SNCB.

**Apoptosis:** APLP1, APP, CASP3, CASP4, CLU, EP300, ERN1, IL1A, MAPT, MPO, NAE1, PRKCA, PRKCE, PRKCZ, PSEN1, PSEN2, SNCA.

**Cell Cycle:** APBB1, APBB2, CDK1 (CDC2), CDK5, CDKL1, ERN1, EP300, IL1A, NAE1, PRKCA.

### **Cell Signaling Molecules:**

WNT Signaling: GSK3A, GSK3B, LRP6.

Notch Signaling: ADAM10, APH1A, NCSTN, PSEN1, PSEN2.

G-protein Coupled Receptor Signaling: APLP2, GNAO1, GNAZ, GNB1, GNB4, GNB5, GNG11, GNG3, GNG4, GNGT1, GNGT2, NTRK1, NTRK2.

Intracellular Signaling: APBA3, APBB2, PRKCA, PRKCB, PRKCD, PRKCE, PRKCG, PRKCI, PRKCQ, PRKCZ, PSEN1, PSEN2.

Other Genes: GAP43, GNB2, IDE, IL1A, INSR, NAE1, PLAU (uPA).

**Transcription:** APBB1, APBB2, EP300, ERN1.

**Oxidative Stress:** HSD17B10 (HADH2), MPO, UQCRC1, UQCRC2.

**Proteases & Inhibitors:** ADAM10, APLP2, APP, CAPN1, CTSC, CTSD, CTSG, CTSL1, SERPINA3, UQCRC2.