

Table S10: Significantly changed GO Cellular Components (level 5) at 6 hours post KA treatment, using the "Mapping to ontologies (TRANSPATH®)" workflow. All significantly changed genes at 6h were considered, and a threshold of p-value <0.05 was applied.

| Gene Ontology Category ID | GO-Cellular Component (level 5) | Time point(s) of enrichment | Number of significantly changed genes at 6h | Symbol of significantly changed genes at 6h |
|---------------------------|--------------------------------------|-----------------------------|---|--|
| GO:0005634 | nucleus | 6h, 12h, 24h | 81 | 2310046A06Rik, 4933421E11Rik, Arih2, Atf7ip (ENSMUSG00000053935), Bach2, Bag4, Baz1a, Bcl11b, Cacna1h, Camkk1, Casc3, Cdkn1a, Cited2, Crem, Csrnp1, Dhx33, Dusp1, Dusp5, E2f3, Egr4, Ehd3, Ell2, Elp2, Errfi1, Fos, Fosb, Foxk1, Foxp1, Gadd45b, Gadd45g, Hcfc2, Ifrd1, Jun, Junb, Kdm4b, Kdm6b, Map3k5, Mbd5, Narf, Neurod2, Neurod6, Nfkbiz, Npas4, Nr3c2, Nr4a1, Nr4a2, Nr4a3, Nrip2, Per1, Plagl1, Prkx, Ptbp2, Ptgs2, Pvr, Qsox2, Rcan1, Rcor2, Rdh10, Rgs2, Rilpl1, Ripply2, Rorb, Sap18, Sap30, Selp, Senp7, Setd1b, Siah2, Smad7, Srsf12, Tfdp2, Tinf2, Tnpo2, Tspyl3, Zeb2, Zfp12, Zfp128, Zfp292, Zfp36, Zfp462, Zwint |
| GO:0044451 | nucleoplasm part | 6h | 20 | 2310046A06Rik, Atf7ip (ENSMUSG00000053935), Casc3, Crem, E2f3, Ell2, Elp2, Fos, Foxk1, Foxp1, Jun, Npas4, Nr4a1, Nr4a3, Rcor2, Sap18, Sap30, Setd1b, Smad7, Tfdp2 |
| GO:0016023 | cytoplasmic membrane-bounded vesicle | 6h, 12h, 24h | 13 | 1190002N15Rik, Anxa2, Arc, Bdnf, Clvs2, Ehd3, Gpnmb, Pcsk1, Pcsk2, Scg2, Srgn, Stxbp5, Syt4 |
| GO:0034703 | cation channel complex | 6h, 12h, 24h | 7 | Cacna1h, Kcnf1, Kcnip2, Kcns2, Kcnv1, Kctd4, Kctd6 |

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|------------|---|--------------|---|---|
| GO:0008076 | voltage-gated potassium channel complex | 6h, 12h, 24h | 6 | Kcnf1, Kcnip2, Kcns2, Kcnv1, Kctd4, Kctd6 |
| GO:0031981 | nuclear lumen | 6h, 12h | 2 | 2310046A06Rik, Narf |
