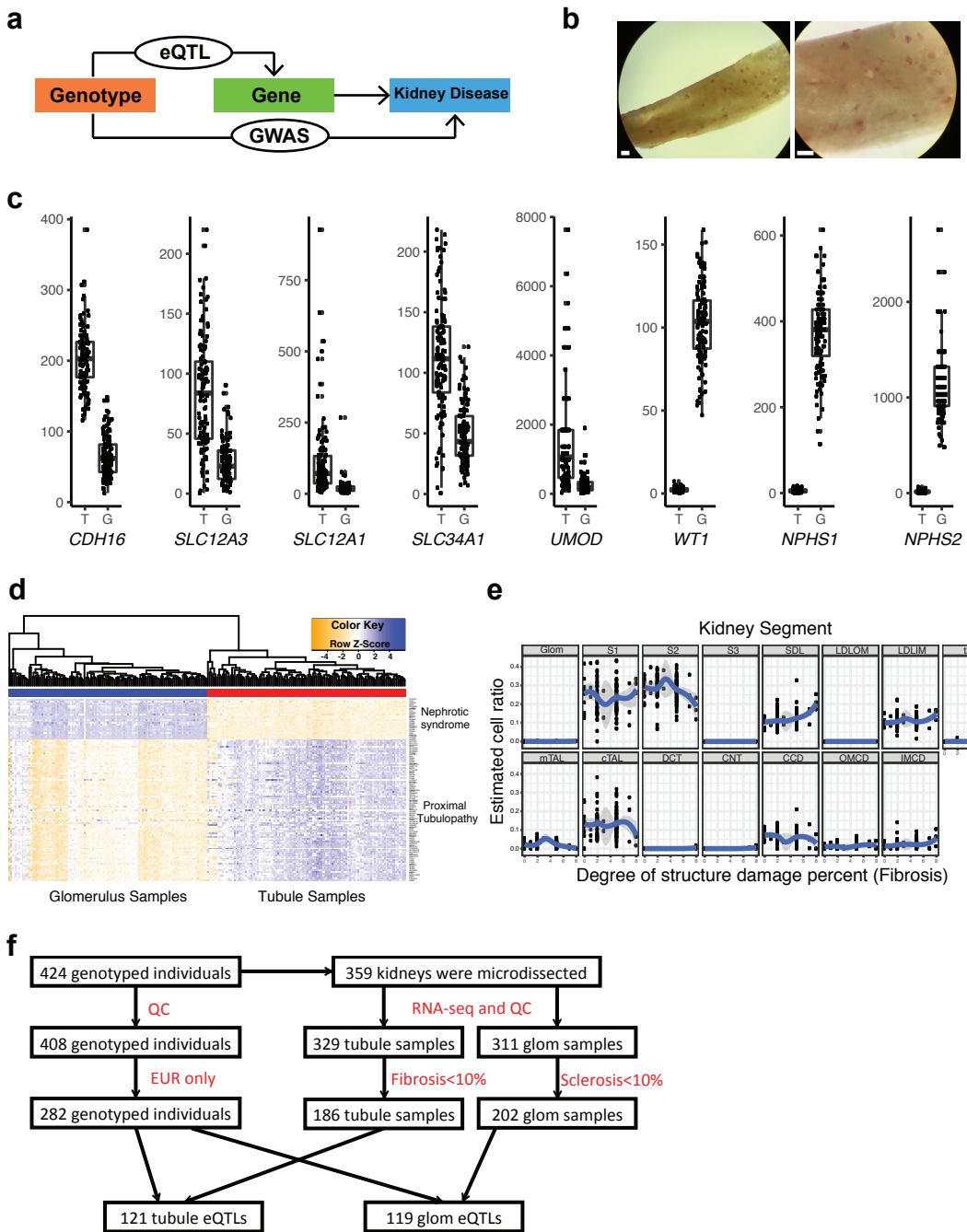


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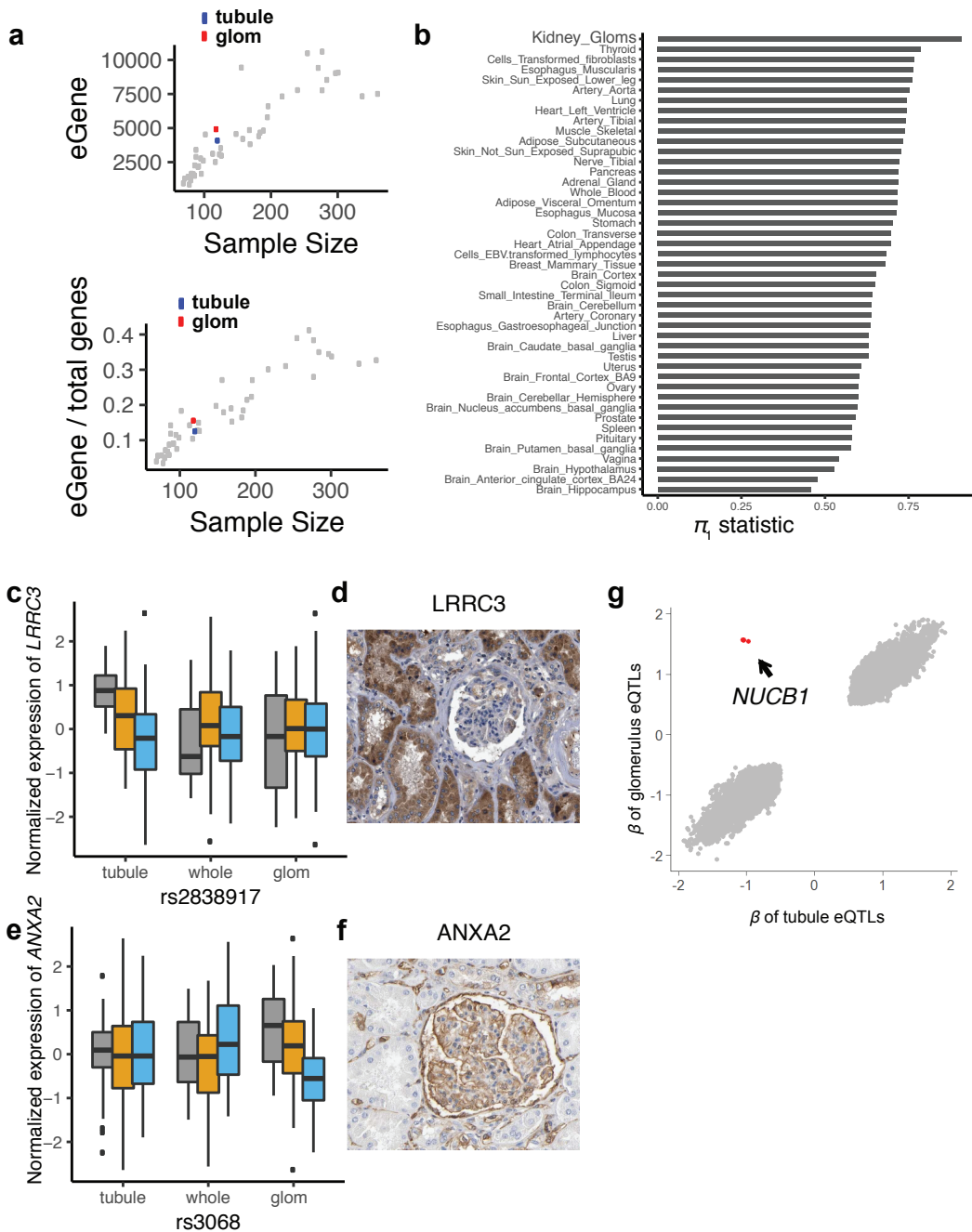
Renal compartment-specific genetic variation analyses identify new pathways in chronic kidney disease

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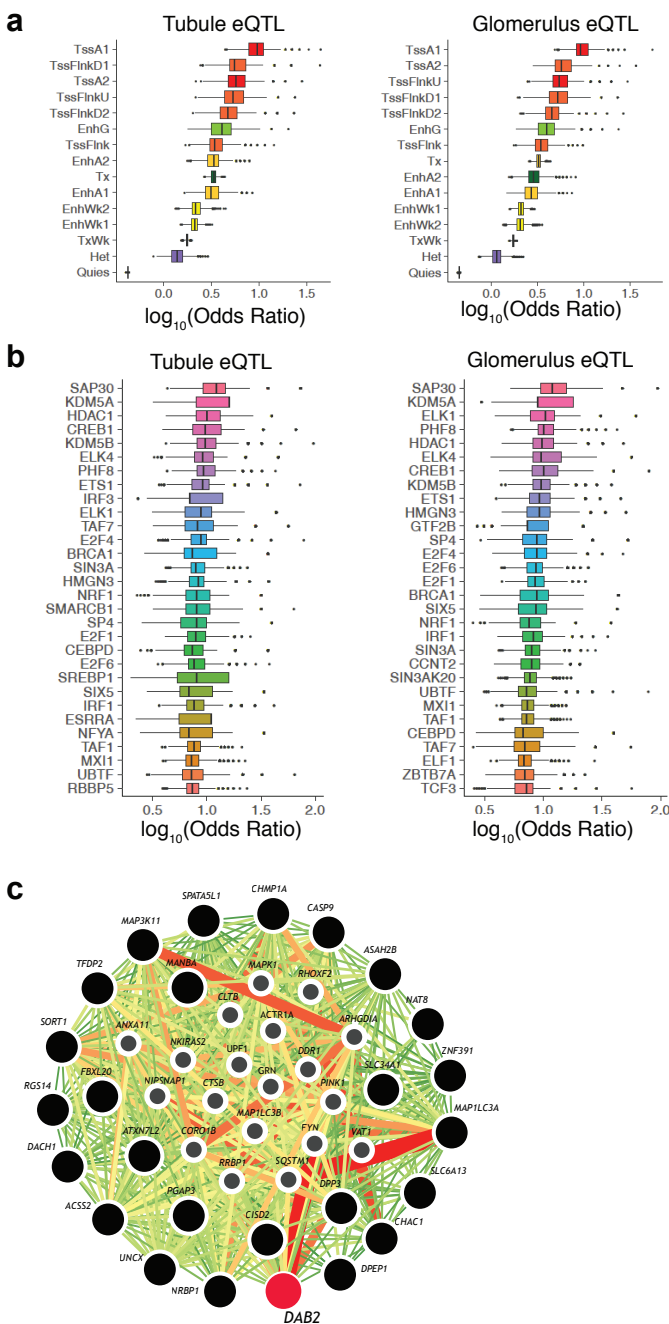
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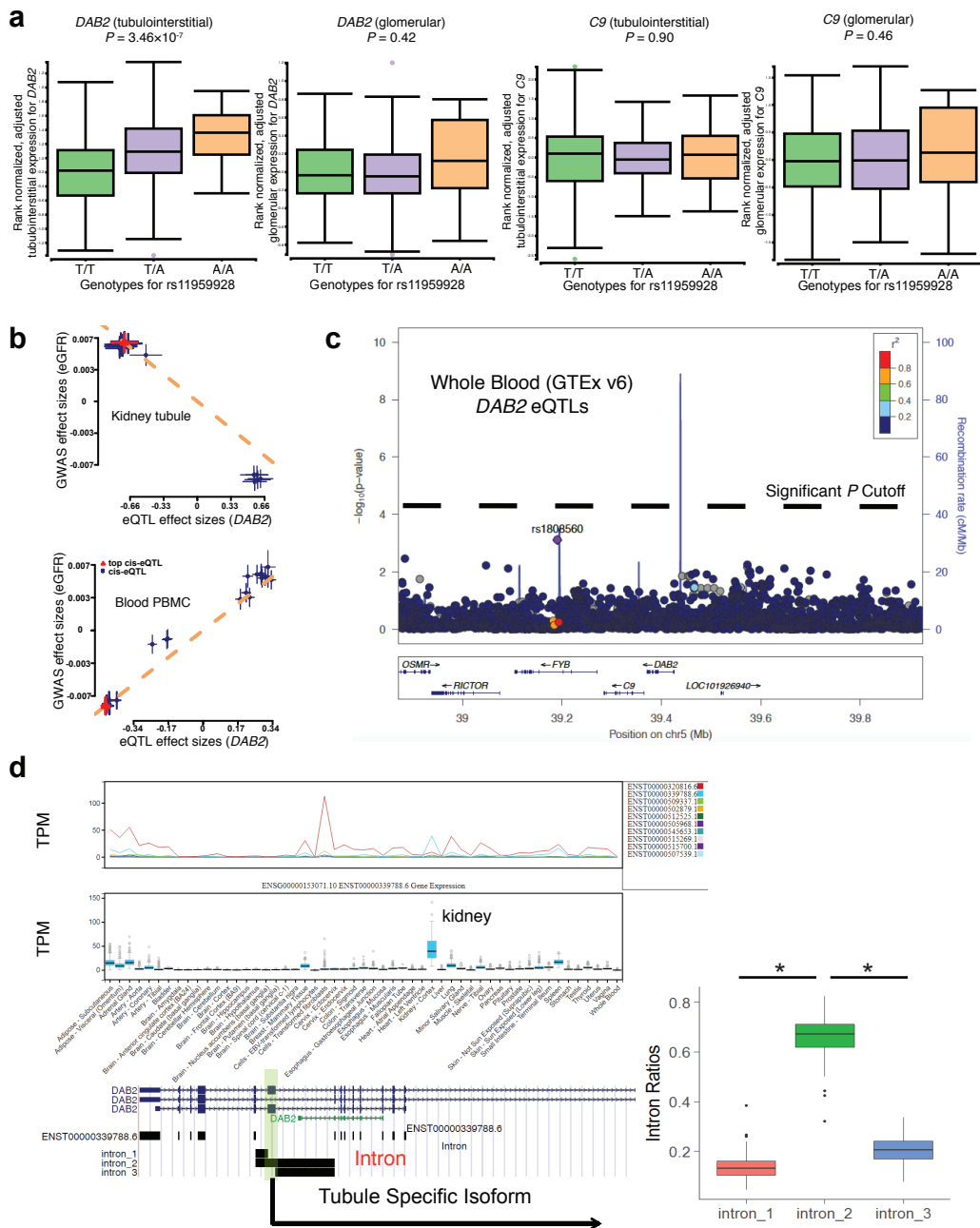
Supplementary Fig. 1 | Microdissection of human kidney. **a**, Diagram describing the analytic framework for eQTL and GWAS integration to identifying CKD associated genes. **b**, Manual microdissection of human kidney tissue samples. Red dots, glomeruli. Scale bar: 1 mm. **c**, Relative gene expression (RPKM) of representative tubule- and glomerulus-specific markers in our dataset. Center lines show the medians; box limits indicate the 25th and 75th percentiles; whiskers extend to the 5th and 95th percentiles, individuals are represented by dots. **d**, Heatmap analysis of well-known nephrotic syndrome genes and tubulopathy genes in our dataset. Tubule samples: $n = 121$; Glomerulus samples: $n = 119$ (**c**, **d**). **e**, In silico cell composition analysis of 121 tubule RNA-seq samples using CIBERSORT. For each kidney segment, the correlation between the percent fibrosis (x axis) and the estimated segment (y axis) across kidney tubule samples. Segments shown: G: glomerulus; S1, first segment of the proximal tubule; S2, second segment of the proximal tubule; S3, third segment of the proximal tubule; SDL, short descending limb of the Loop of Henle; LDLOM, long descending limb of the Loop of Henle in the outer medulla; LDLIM, long descending limb of the loop of Henle in the inner medulla; tAL, thin ascending limb of the loop of Henle; mTAL, medullary thick ascending limb of the loop of Henle; cTAL, cortical thick ascending limb of the loop of Henle; DCT, distal convoluted tubule; CNT, connecting tubule; CCD, cortical collecting duct; OMCD, outer medullary collecting duct; IMCD, inner medullary collecting duct. **f**, Diagram illustrating the inclusion and exclusion criteria for the current analysis.



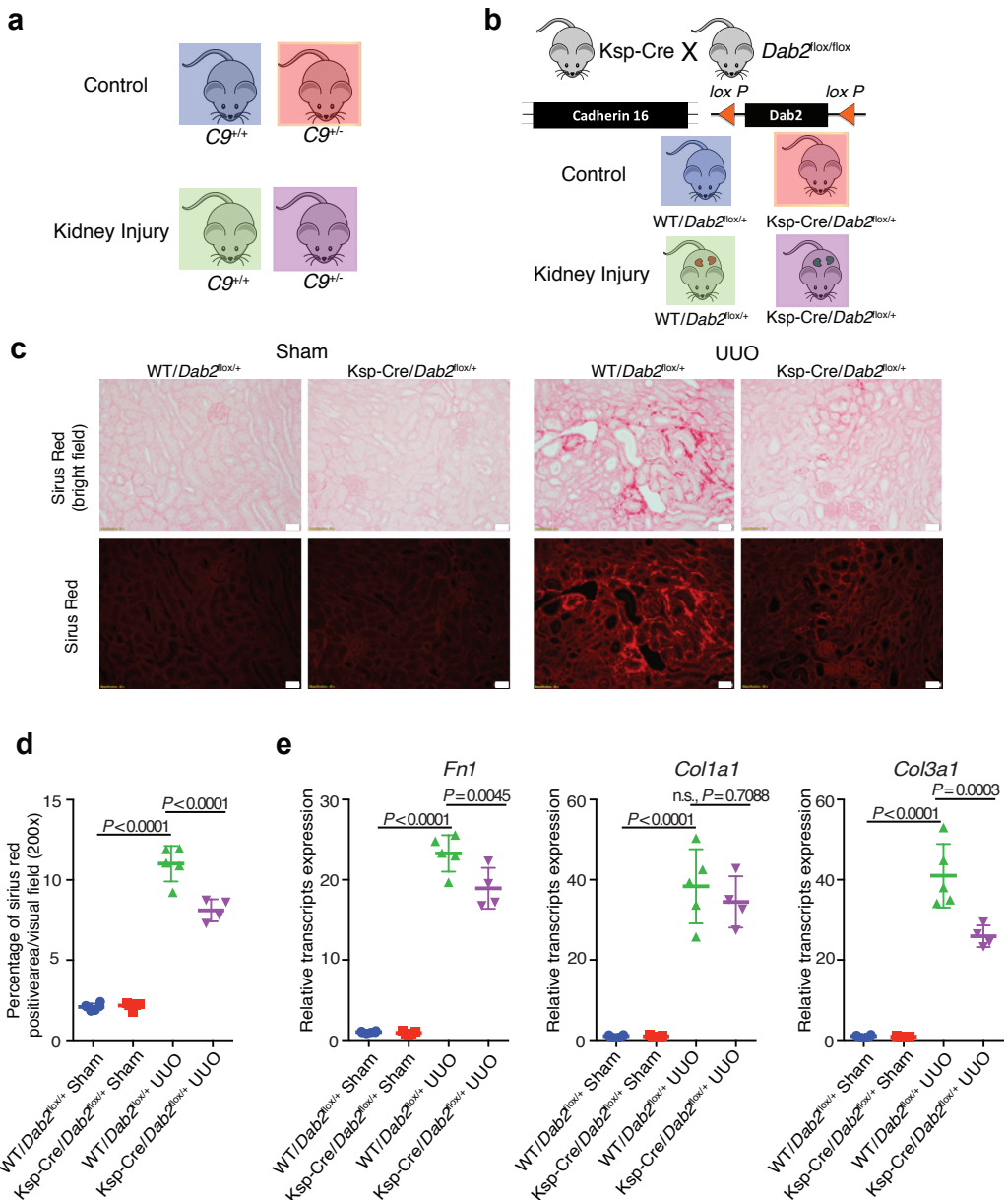
Supplementary Fig. 2 | Kidney compartment-specific eQTLs. **a**, Relationship between sample size (x axis) and the number (top) and the proportion (bottom) of eGenes identified by eQTL analysis (y axis). Red dot, glomerulus eQTL data; blue dot, tubule eQTL data; gray dots, 44 human tissue eQTL data from GTEx (v6p). **b**, Overlap probability between tubule eQTLs and other tissue types from GTEx. π_i , probability calculated using Storey's q method. **c**, The association between rs2838917 genotype (grey, reference allele; yellow, heterozygous allele; blue, alternative allele) and *LRRC3* expression ($\beta = -0.64$, $P = 7.11 \times 10^{-6}$) in tubules, whole kidney and glomeruli samples. **d**, Representative immunohistochemistry image of *LRRC3* in human kidney. **e**, The association between rs3068 genotype (grey, reference allele; yellow, heterozygous allele; blue, alternative allele) and *ANXA2* expression ($\beta = -0.62$, $P = 1.56 \times 10^{-6}$) in tubules, whole kidney and glomeruli samples. Tubule samples: $n = 121$; Glomerulus samples: $n = 119$; Whole kidney samples: $n = 96$. P was calculated by linear regression. Center lines show the medians; box limits indicate the 25th and 75th percentiles; whiskers extend to the 5th and 95th percentiles, outliers are represented by dots (**c**, **e**). **f**, Representative immunohistochemistry image of *ANXA2* in human kidney. **g**, The strength of association (β) of tubule (x axis) and glomerulus (y axis) eQTLs. Note the consistent direction of β , except *NUCB1* eQTL is opposite direction.



Supplementary Fig. 3 | Functional annotations of glomerulus and tubule eQTLs. a, Odds ratio of the overlap (x axis) of tubule (left) ($n = 4,081$) or glomerulus (right) ($n = 4,913$) eQTLs and kidney histone binding peaks, compared to randomly selected variants with matched MAF and gene distance. **b**, Odds ratios (x axis) of tubule (left) ($n = 4,081$) or glomerulus (right) ($n = 4,913$) eQTLs of transcription factor binding sites overlap, compared to randomly selected variants with matched MAF and distance to gene. Only the top 30 transcription factors are reported. Permutation $n = 5,000$ randomly selected times. Center lines show the medians; box limits indicate the 25th and 75th percentiles; whiskers extend to the 5th and 95th percentiles, outliers are represented by dots (**a**, **b**). Quies: Quiescent; Het: Heterochromatin; Tx: Strong transcription; TxWk: Weak transcription; EnhG: Genic enhancers; EnhWk1: Enhancers weak1; EnhA2: Active enhancers2; EnhA1: Active enhancers1; EnhWk2: Enhancers weak1; TssA2: Active TSS2; TssA1: Active TSS1; TssFlnkU: Flanking TSS upstream; TssFlnkD1: Flanking TSS downstream1; TssFlnk: Flanking TSS; TssFlnkD2: Flanking TSS downstream2. **c**, Genome scale integrated analysis of gene network (GIANT) visualization of candidate target genes in tubule and glomerulus together. The color of each link represents the relationship confidence, from green (0.01) to red (1).

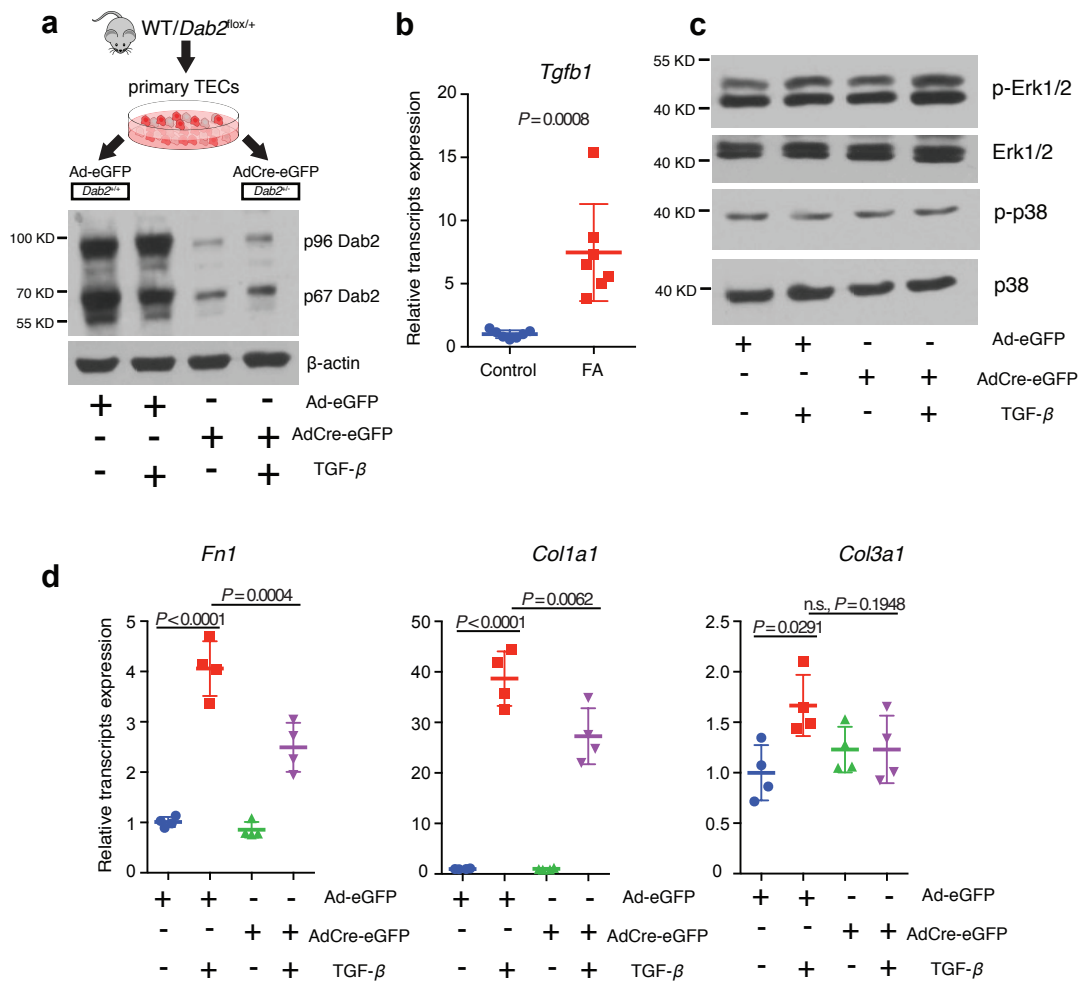


Supplementary Fig. 4 | Replication of tubule-specific eQTL effect of rs11959928 on *DAB2* expression. **a**, The boxplots of rs11959928 genotype and glomerulus- ($n = 136$) and tubule- ($n = 166$) specific expression of *DAB2* or *C9* (downloaded from the NephQTL browser, <http://nephqtl.org>). Center lines show the medians; box limits indicate the 25th and 75th percentiles; whiskers extend to the 5th and 95th percentiles, outliers are represented by dots. P was calculated by linear regression. **b**, Effect sizes of multiple variants in cis-eQTL region of *DAB2* from CKD GWAS plotted against those from the tubule eQTLs (top, $n = 121$) and blood PBMC eQTLs (bottom, $n = 5,311$). Orange dash line, the estimate of the effect size of gene expression on phenotype (eGFR); error bars, the standard errors of SNP effects. **c**, LocusZoom plots of genotype and *DAB2* expression in whole blood samples ($n = 338$) in GTEx (v6p). The y axis shows $-\log(P)$ of association tests by linear regression. Dash line, significance threshold calculated by permutation. **d**, Left, a kidney-specific highly expressed isoform of *DAB2* (ENST00000339788.6) with an exon skipped (chr5: 39,382,720-39,383,373, hg19) was identified by GTEx (v7). Right, the fractions of each detected intron around the given exon calculated by LeafCutter in our kidney tubule samples ($n = 121$). Center lines show the medians; box limits indicate the 25th and 75th percentiles; whiskers extend to the 5th and 95th percentiles, outliers are represented by dots. $*P < 2.2 \times 10^{-16}$ (the minimum P can be reported by R) by two-sided Wilcoxon signed-rank test.

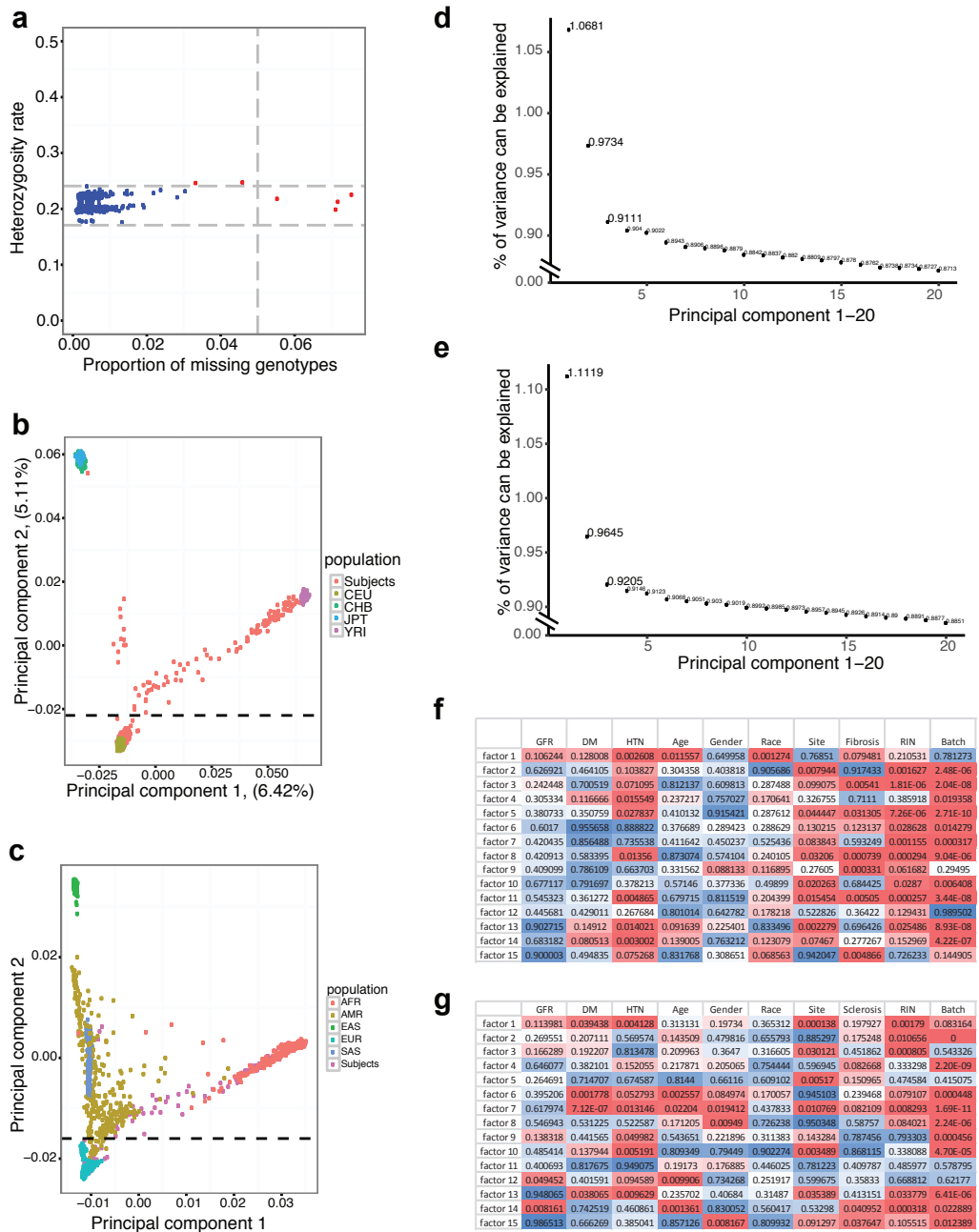


Supplementary Fig. 5 | Lowering *Dab2* expression in tubules protected from UUO-induced kidney fibrosis in mice.

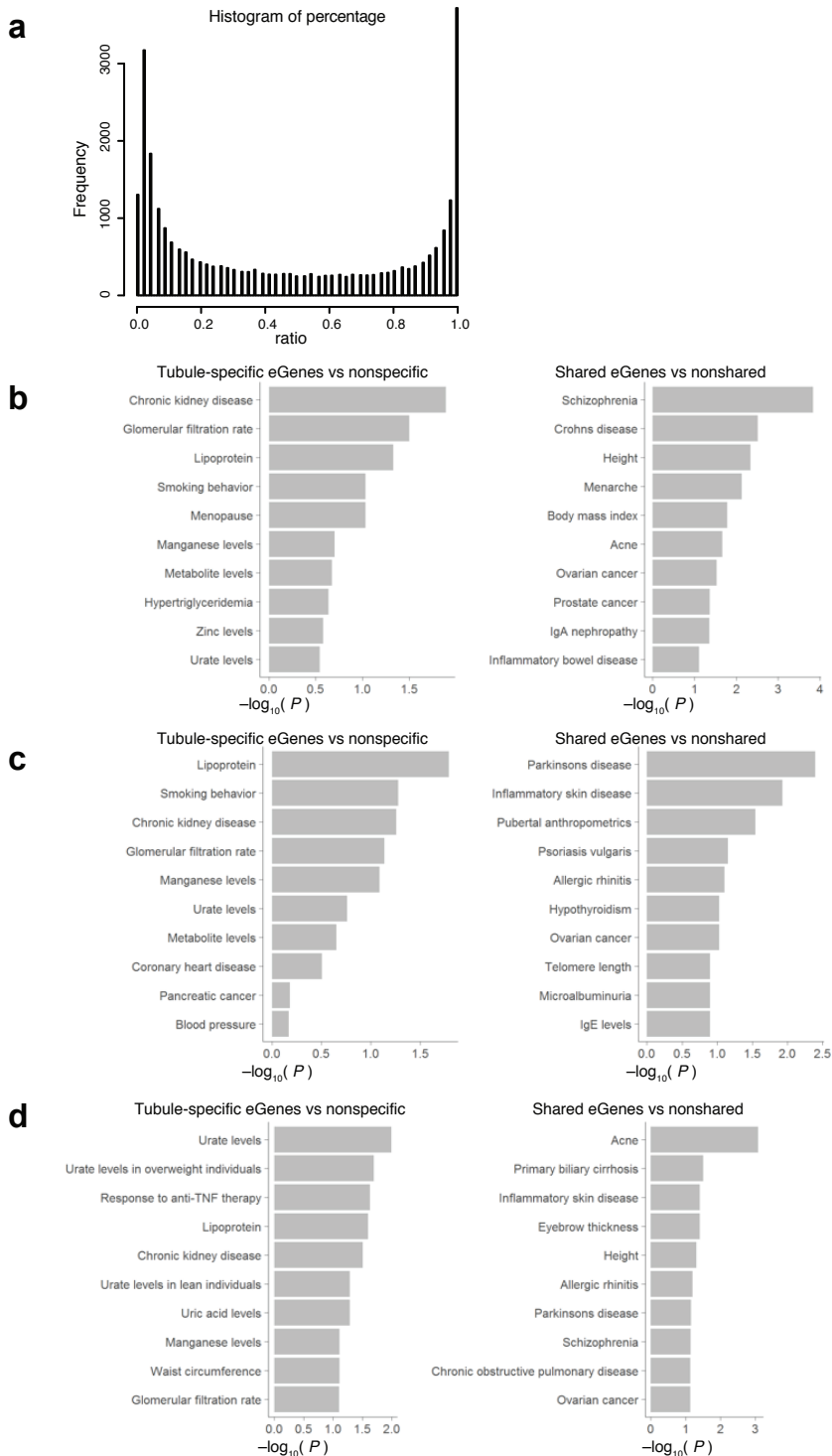
a, Experimental scheme for *C9*-knockout mice. **b**, Experimental scheme for *Ksp-Cre/Dab2^{lox/+}* mice. **c**, Representative images of Sirius red-stained kidney sections from control and *Ksp-Cre/Dab2^{lox/+}* mice in sham or UUO model. **d**, Quantification of Sirius Red-stained kidney sections from control and *Ksp-Cre/Dab2^{lox/+}* mice in sham or UUO model. Scale bar: 20 μ m. **e**, Relative mRNA amount of *Fn1*, *Col1a1* and *Col3a1* in control and *Ksp-Cre/Dab2^{lox/+}* mice in sham or UUO model. *P* was calculated by one-way ANOVA with *post hoc* Tukey test. *WT/Dab2^{lox/+}* Sham: *n* = 6, *Ksp-Cre/Dab2^{lox/+}* Sham: *n* = 5, *WT/Dab2^{lox/+}* UUO: *n* = 5, *Ksp-Cre/Dab2^{lox/+}* UUO: *n* = 4 (**c-e**). Data are represented as mean $\pm$ s.d.



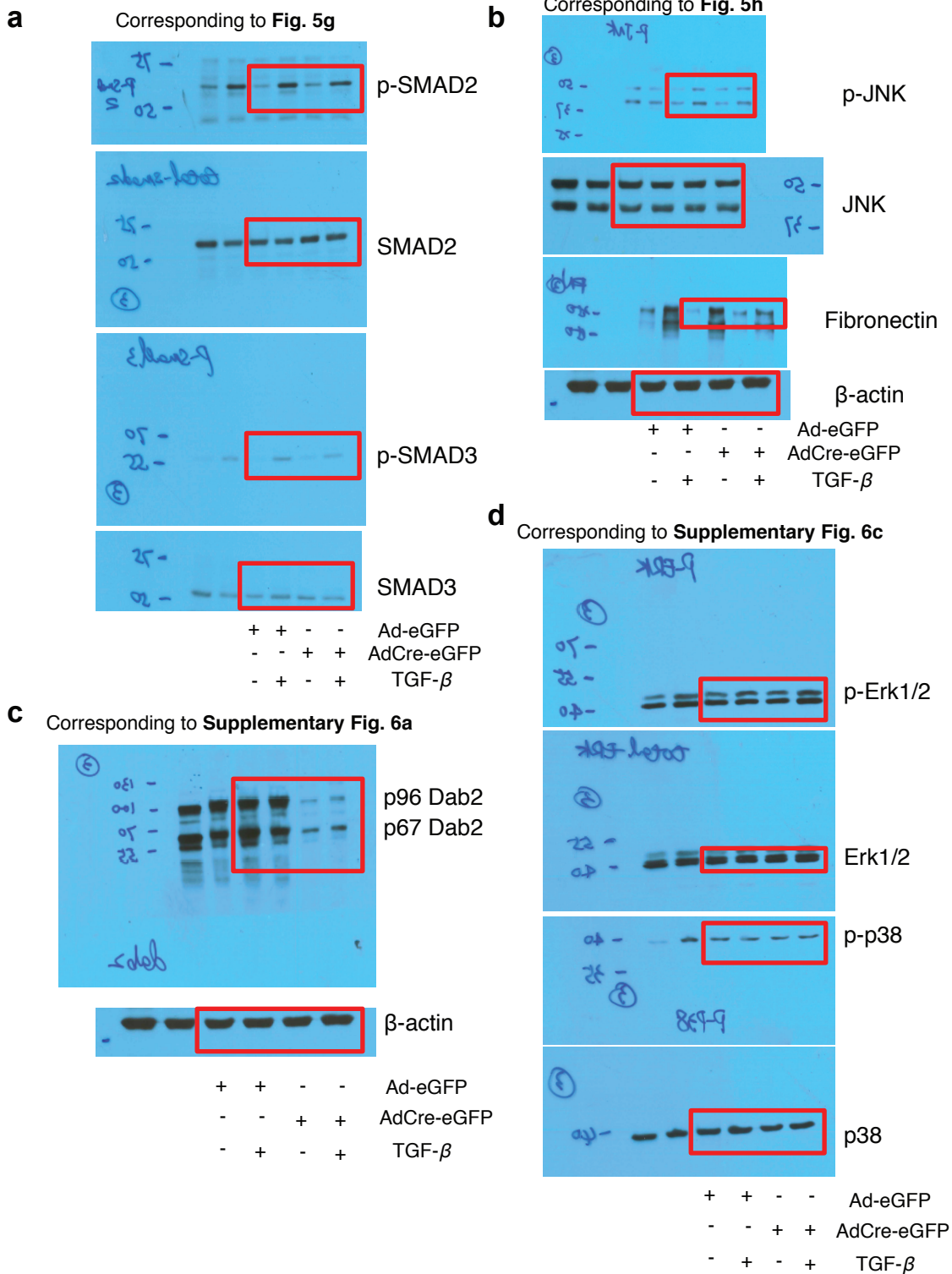
Supplementary Fig. 6 | Lowering *Dab2* levels protected tubule cells from profibrotic effect of TGF- β . **a**, Experimental scheme for *in vitro* studies of primary TECs from *Dab2*^{lox/+} mice. Representative western blot analysis of p96 Dab2 and p67 Dab2 protein in primary TECs of *Dab2*^{lox/+} mice treated with 5 ng/ml TGF- β and Ad-eGFP or AdCre-eGFP from $n = 4$ independently repeated experiments. β -actin was used as a loading control. **b**, Relative mRNA amount of *Tgfb1* in wild type mice with or without FA injection, $n = 7$ per group. P was calculated by unpaired two-sided Student's *t* test. Data are represented as mean $\pm$ s.d. **c**, Representative western blot analysis of p-Erk1/2, Erk1/2, p-p38, p38 in TGF- β -treated *Dab2*^{+/+} and *Dab2*^{-/-} primary TECs from $n = 4$ independently repeated experiments. **d**, Relative mRNA amount of *Fn1*, *Col1a1* and *Col3a1* in TGF- β -treated *Dab2*^{+/+} and *Dab2*^{-/-} primary TECs from $n = 4$ independently repeated experiments. P was calculated by One-way ANOVA with *post hoc* Tukey test. Data are represented as mean $\pm$ s.d.



Supplementary Fig. 7 | Genotype data processing. **a**, The proportion of missing genotypes and heterozygosity rate. Red dots, excluded individuals. **b**, Scatter plot of the principal component analysis (PCA) of 408 individuals combined with 395 individuals from HapMap3. **c**, Scatter plot of the PCA of 408 individuals combined with 2504 individuals from 1000GP Phase1v3. Dash line, threshold of individuals with European ancestor (**b**, **c**). **d**, PCA of the genotype data from 121 subjects used for tubule eQTLs. The y axis described the percent variance explained by top 20 PCs. **e**, PCA of the genotype data from 119 subjects used for glomerulus eQTLs. The y axis described the percent variance explained by top 20 PCs. **f**, The P of Pearson correlation between known clinical variables and 15 PEER factors across 121 tubule RNA-seq samples. **g**, The P of Pearson correlation between known clinical variables and 15 PEER factors across 119 glomerulus RNA-seq samples. The color represents P from 0 (red) to 1 (blue).



Supplementary Fig. 8 | Estimation of tissue-specific eGenes and tissue-shared eGenes. **a**, Histogram of eGenes identified in single or multiple tissues. The x axis is the proportion of tissues where the eGene can be identified (0-46 tissue or compartments: glomerulus, tubule and 44 GTEx tissue). The y axis is the number of genes in each category. **b-d**, The 15 GWAS traits with the strongest enrichment (y axis) as analyzed by $-\log(P)$ using two-sided Fisher's exact test (x axis) for tubule-specific eGenes ($n = 589$) and tubule-shared eGenes ($n = 7050$), with different thresholds; Tubule-specific eGenes were defined as $m > 0.8$ in 5/46 tissues or less (including tubule), and tubule-shared eGenes were defined as $m > 0.8$ in 40/46 tissues or more (including tubule) (**b**). Tubule-specific eGenes were defined as $m > 0.9$ in 3/46 tissues or less (including tubule), and tubule-shared eGenes were defined as $m > 0.8$ in 42/46 tissues or more (including tubule) (**c**). Tubule-specific eGenes were defined as $m > 0.9$ in 8/46 tissues or less (including tubule), and tubule-shared eGenes were defined as $m > 0.9$ in 37/46 tissues or more (including tubule) (**d**).



Supplementary Fig. 9 | Original uncropped images of western blots. Scan of western blots corresponding to **Fig. 5g**, **h** and **Supplementary Fig. 6a, c**.

Supplementary Table 1. Clinical characteristic of subjects used for eQTL analysis.

Tubule, $n = 121$; glomerulus, $n = 119$. Data are represented as mean $\pm$ s.d.

	tubule eQTL	glom eQTL
n	121	119
Age	59.87 $\pm$ 12.53	56.71 $\pm$ 13.09
GFR (ml/min/1.72m ²)	74.96 $\pm$ 21.23	80.32 $\pm$ 18.95
Tubulointerstitial fibrosis %	3.47 $\pm$ 1.99	-
Glomerular sclerosis %	-	3.04 $\pm$ 2.25
RIN	8.2 $\pm$ 0.91	8.8 $\pm$ 0.7
5'-3' BIAS	0.43 $\pm$ 0.12	0.55 $\pm$ 0.16
Mito %	22.83 $\pm$ 5.39	8.99 $\pm$ 3.48
Ribo %	2.42 $\pm$ 0.57	1.89 $\pm$ 0.75
Unique mapped %	0.87 $\pm$ 0.02	0.89 $\pm$ 0.01
Unmapped %	0.02 $\pm$ 0.01	0.02 $\pm$ 0.01
Gender	68 M, 53 F	71 M, 48 F

Supplementary Table 2. The tubule-compartment- or glomerulus-compartment-specific eQTLs. m , the posterior probability that an eQTL effect exists in a given tissue ($m > 0.9$ was used to define the tissue-specific feature).

Gene	Best SNP	Symbol	m Tubule	m Glomerulus	m Whole kidney	Specific compartment
ENSG00000092094.6	rs999692	<i>OSGEP</i>	0.996	0.821	0.447	tubule
ENSG00000114279.9	rs9850123	<i>FGF12</i>	0.98	0.469	0.167	tubule
ENSG00000233718.1	rs9653226	<i>MYCNOS</i>	0.979	0.778	0.132	tubule
ENSG00000137270.10	rs9474431	<i>GCM1</i>	0.975	0.765	0.221	tubule
ENSG00000165659.12	rs932768	<i>DACH1</i>	1	0.012	0.75	tubule
ENSG00000132763.10	rs868351	<i>MMACHC</i>	0.99	0.501	0.544	tubule
ENSG00000267596.1	rs854683	<i>CCL15</i>	0.996	0.766	0.214	tubule
ENSG00000154783.6	rs829187	<i>FGD5</i>	0.994	0.539	0.625	tubule
ENSG00000160460.11	rs814534	<i>SPTBN4</i>	0.999	0.76	0.522	tubule
ENSG00000172175.8	rs78844726	<i>MALT1</i>	0.976	0.086	0.032	tubule
ENSG00000136463.7	rs78369934	<i>TACO1</i>	0.932	0.757	0.276	tubule
ENSG00000104313.13	rs7833605	<i>EYA1</i>	0.994	0.867	0.681	tubule
ENSG00000155096.9	rs7833202	<i>AZIN1</i>	0.996	0.885	0.649	tubule
ENSG00000218803.1	rs78223154	<i>GSTM2P1</i>	0.938	0.17	0.066	tubule
ENSG00000164176.8	rs7717140	<i>EDIL3</i>	0.997	0.189	0.086	tubule
ENSG00000136444.5	rs7627	<i>RSAD1</i>	0.991	0.105	0.168	tubule
ENSG00000204923.3	rs7568014	<i>FBXO48</i>	0.97	0.478	0.309	tubule
ENSG00000012963.9	rs747075	<i>UBR7</i>	0.979	0.62	0.792	tubule

ENSG00000106723.12	rs73653351	<i>SPIN1</i>	0.97	0.471	0.458	tubule
ENSG00000111799.16	rs73464364	<i>COL12A1</i>	0.949	0.256	0.196	tubule
ENSG00000213160.5	rs73020383	<i>KLHL23</i>	0.925	0.203	0.123	tubule
ENSG00000137177.14	rs724915	<i>KIF13A</i>	0.996	0.004	0.819	tubule
ENSG00000141127.10	rs7211225	<i>PRPSAP2</i>	0.991	0.766	0.156	tubule
ENSG00000126091.15	rs71892320	<i>ST3GAL3</i>	0.997	0.033	0.86	tubule
ENSG00000117906.9	rs7183492	<i>RCN2</i>	0.997	0.812	0.061	tubule
ENSG00000134899.13	rs71699349	<i>ERCC5</i>	0.987	0.674	0.232	tubule
ENSG00000149308.12	rs71488283	<i>NPAT</i>	0.952	0.52	0.336	tubule
ENSG00000033327.8	rs7101478	<i>GAB2</i>	0.99	0.601	0.524	tubule
ENSG00000148634.11	rs7078055	<i>HERC4</i>	0.993	0.214	0.067	tubule
ENSG00000163947.7	rs6978	<i>ARHGEF3</i>	0.999	0.493	0.308	tubule
ENSG00000085662.9	rs6947015	<i>AKR1B1</i>	1	0.804	0.002	tubule
ENSG00000116133.7	rs684718	<i>DHCR24</i>	0.976	0.894	0.28	tubule
ENSG00000146007.6	rs68010656	<i>ZMAT2</i>	0.999	0.231	0.015	tubule
ENSG00000132911.4	rs67988665	<i>NMUR2</i>	0.954	0.037	0.134	tubule
ENSG00000123992.14	rs6751527	<i>DNPEP</i>	0.965	0.164	0.098	tubule
ENSG00000119899.11	rs67258032	<i>SLC17A5</i>	1	0.898	0.201	tubule
ENSG00000135968.15	rs6721036	<i>GCC2</i>	0.952	0.245	0.053	tubule
ENSG00000143850.8	rs6659692	<i>PLEKHA6</i>	0.997	0.04	0.104	tubule
ENSG00000166974.8	rs664891	<i>MAPRE2</i>	0.973	0.06	0.075	tubule
ENSG00000155463.8	rs6572731	<i>OXA1L</i>	0.925	0.58	0.776	tubule
ENSG00000173706.8	rs6438868	<i>HEG1</i>	0.999	0.04	0.019	tubule
ENSG00000143324.9	rs6425648	<i>XPR1</i>	0.923	0.163	0.126	tubule
ENSG00000197969.7	rs62571425	<i>VPS13A</i>	0.998	0.236	0.062	tubule
ENSG00000088756.8	rs624294	<i>ARHGAP28</i>	0.997	0.012	0.003	tubule
ENSG00000239697.6	rs62059804	<i>TNFSF12</i>	0.998	0.048	0.755	tubule
ENSG00000133636.6	rs61930913	<i>NTS</i>	0.976	0.256	0.208	tubule
ENSG00000133687.11	rs61922200	<i>TMTC1</i>	0.929	0.224	0.715	tubule
ENSG00000101306.6	rs6087770	<i>MYLK2</i>	1	0.074	0.69	tubule
ENSG00000172345.9	rs60831942	<i>STARD5</i>	0.999	0.828	0.131	tubule
ENSG00000171533.7	rs607727	<i>MAP6</i>	1	0	0.093	tubule
ENSG00000100100.8	rs60377913	<i>PIK3IP1</i>	0.989	0.653	0.064	tubule
ENSG00000132670.16	rs6037443	<i>PTPRA</i>	0.984	0.25	0.105	tubule
ENSG00000153317.10	rs60190188	<i>ASAP1</i>	0.972	0.131	0.118	tubule
ENSG00000129562.6	rs59328419	<i>DAD1</i>	0.998	0.553	0.862	tubule
ENSG00000108306.7	rs59002312	<i>FBXL20</i>	0.999	0.772	0.524	tubule

ENSG00000170549.3	rs58942019	<i>IRX1</i>	0.988	0.215	0.227	tubule
ENSG00000170561.8	rs58942019	<i>IRX2</i>	0.993	0.1	0.172	tubule
ENSG00000111911.5	rs58571064	<i>HINT3</i>	0.923	0.052	0.046	tubule
ENSG00000198774.3	rs58553548	<i>RASSF9</i>	0.996	0.558	0.457	tubule
ENSG00000055208.13	rs55875056	<i>TAB2</i>	0.977	0.679	0.393	tubule
ENSG00000171843.11	rs4977427	<i>MLLT3</i>	0.993	0.208	0.316	tubule
ENSG00000133101.5	rs4943379	<i>CCNA1</i>	1	0.427	0.838	tubule
ENSG00000175906.4	rs4793257	<i>ARL4D</i>	0.981	0.485	0.682	tubule
ENSG00000015592.12	rs4733037	<i>STMN4</i>	1	0.007	0.001	tubule
ENSG00000122642.6	rs4723227	<i>FKBP9</i>	0.998	0.653	0.216	tubule
ENSG00000164818.11	rs4719324	<i>HEATR2</i>	0.997	0.406	0.667	tubule
ENSG00000164182.6	rs4700440	<i>NDUFAF2</i>	0.979	0.156	0.05	tubule
ENSG00000144824.15	rs4682318	<i>PHLDB2</i>	0.978	0.615	0.305	tubule
ENSG00000021826.10	rs4673519	<i>CPS1</i>	0.989	0.891	0.103	tubule
ENSG00000115252.14	rs4572561	<i>PDE1A</i>	0.996	0.166	0.29	tubule
ENSG00000104763.13	rs399485	<i>ASAHI</i>	0.999	0.544	0.093	tubule
ENSG00000048162.15	rs3965409	<i>NOP16</i>	0.998	0.895	0.371	tubule
ENSG00000078295.11	rs3902914	<i>ADCY2</i>	0.987	0.124	0.196	tubule
ENSG00000049089.9	rs381231	<i>COL9A2</i>	0.94	0.753	0.577	tubule
ENSG00000114999.7	rs3811038	<i>TTL</i>	0.988	0.213	0.246	tubule
ENSG00000185201.12	rs3809111	<i>IFITM2</i>	0.992	0.675	0.467	tubule
ENSG00000125945.10	rs3795308	<i>ZNF436</i>	0.977	0.37	0.756	tubule
ENSG00000152952.7	rs3762691	<i>PLOD2</i>	0.999	0.542	0.175	tubule
ENSG00000088298.8	rs3736802	<i>EDEM2</i>	0.999	0.525	0.086	tubule
ENSG00000109762.11	rs369974631	<i>SNX25</i>	0.998	0.232	0.158	tubule
ENSG00000183153.5	rs36168686	<i>GJD3</i>	0.966	0.094	0.028	tubule
ENSG00000114473.9	rs35867009	<i>IQCG</i>	0.996	0.082	0.028	tubule
ENSG00000014138.4	rs35661464	<i>POLA2</i>	0.994	0.063	0.749	tubule
ENSG00000141384.7	rs35614679	<i>TAF4B</i>	1	0.234	0.614	tubule
ENSG00000104976.7	rs35347475	<i>SNAPC2</i>	0.996	0.017	0.14	tubule
ENSG00000160218.8	rs35060839	<i>TRAPPC10</i>	0.989	0.261	0.751	tubule
ENSG00000138759.13	rs345535	<i>FRAS1</i>	0.999	0.6	0.441	tubule
ENSG00000242779.2	rs34433816	<i>ZNF702P</i>	0.993	0.595	0.196	tubule
ENSG00000119688.16	rs34053153	<i>ABCD4</i>	0.996	0.258	0.579	tubule
ENSG00000135318.7	rs313199	<i>NT5E</i>	1	0.003	0.092	tubule
ENSG00000163220.10	rs3014875	<i>S100A9</i>	0.967	0.586	0.137	tubule
ENSG00000038274.12	rs299324	<i>MAT2B</i>	0.994	0.44	0.503	tubule

ENSG00000197183.8	rs293737	<i>C20orf112</i>	0.996	0.742	0.842	tubule
ENSG00000124523.10	rs2841511	<i>SIRT5</i>	0.999	0.36	0.846	tubule
ENSG00000160233.6	rs2838917	<i>LRRC3</i>	0.984	0.052	0.087	tubule
ENSG00000142207.5	rs2833760	<i>URB1</i>	0.973	0.216	0.369	tubule
ENSG00000137766.12	rs2725611	<i>UNC13C</i>	0.985	0.586	0.307	tubule
ENSG00000033030.9	rs2596137	<i>ZCCHC8</i>	0.948	0.19	0.233	tubule
ENSG00000105186.10	rs259240	<i>ANKRD27</i>	0.999	0.192	0.173	tubule
ENSG00000008853.12	rs2466188	<i>RHOBTB2</i>	0.995	0.014	0.074	tubule
ENSG00000168481.4	rs2430806	<i>LGI3</i>	0.967	0.313	0.16	tubule
ENSG00000073711.6	rs2400648	<i>PPP2R3A</i>	0.986	0.405	0.788	tubule
ENSG00000187145.10	rs2305815	<i>MRPS21</i>	0.955	0.831	0.063	tubule
ENSG00000136710.5	rs2292850	<i>CCDC115</i>	1	0.768	0.796	tubule
ENSG00000134574.7	rs2269434	<i>DDB2</i>	0.996	0.879	0.292	tubule
ENSG00000169896.12	rs2230424	<i>ITGAM</i>	0.992	0.12	0.698	tubule
ENSG00000088827.8	rs2208030	<i>SIGLEC1</i>	0.995	0.894	0.355	tubule
ENSG00000181104.6	rs2161589	<i>F2R</i>	0.998	0.548	0.364	tubule
ENSG00000054793.9	rs2151119	<i>ATP9A</i>	1	0.805	0.487	tubule
ENSG00000112137.12	rs2119485	<i>PHACTR1</i>	0.999	0.167	0.868	tubule
ENSG00000165322.13	rs211382	<i>ARHGAP12</i>	0.986	0.834	0.275	tubule
ENSG00000148935.6	rs2030159	<i>GAS2</i>	0.999	0.397	0.012	tubule
ENSG00000165379.9	rs1959417	<i>LRFN5</i>	0.975	0.443	0.53	tubule
ENSG00000168827.10	rs1909551	<i>GFM1</i>	0.997	0.832	0.299	tubule
ENSG00000136754.12	rs1780184	<i>ABI1</i>	1	0.898	0.676	tubule
ENSG00000169991.6	rs17384710	<i>IFFO2</i>	0.994	0.711	0.702	tubule
ENSG00000114491.9	rs17282078	<i>UMPS</i>	0.986	0.876	0.597	tubule
ENSG00000204262.7	rs17270987	<i>COL5A2</i>	0.998	0.51	0.642	tubule
ENSG00000107201.5	rs17217231	<i>DDX58</i>	0.979	0.649	0.244	tubule
ENSG00000158234.8	rs1672936	<i>FAIM</i>	0.995	0.888	0.706	tubule
ENSG00000170142.7	rs167167	<i>UBE2E1</i>	0.925	0.112	0.451	tubule
ENSG00000176890.11	rs150747780	<i>TYMS</i>	0.979	0.458	0.178	tubule
ENSG00000100221.6	rs150579010	<i>JOSD1</i>	1	0.645	0.571	tubule
ENSG00000183251.3	rs1498487	<i>OR51B4</i>	0.997	0.892	0.278	tubule
ENSG00000175445.10	rs1441773	<i>LPL</i>	1	0.109	0.601	tubule
ENSG00000171055.10	rs144173745	<i>FEZ2</i>	0.999	0.089	0.391	tubule
ENSG00000115350.7	rs143773070	<i>POLE4</i>	0.997	0.347	0.108	tubule
ENSG00000181656.6	rs1432419	<i>GPR88</i>	0.959	0.767	0.311	tubule
ENSG00000183625.10	rs142700036	<i>CCR3</i>	0.985	0.51	0.789	tubule

ENSG00000186020.8	rs142202300	<i>ZNF529</i>	0.995	0.861	0.724	tubule
ENSG00000044090.4	rs138605450	<i>CUL7</i>	0.992	0.607	0.884	tubule
ENSG00000117151.8	rs138079921	<i>CTBS</i>	0.986	0.367	0.541	tubule
ENSG00000130643.4	rs1329153	<i>CALY</i>	0.956	0.484	0.444	tubule
ENSG00000183111.7	rs13184089	<i>ARHGEF37</i>	0.98	0.562	0.638	tubule
ENSG00000122218.10	rs1317520	<i>COPA</i>	0.988	0.031	0.22	tubule
ENSG00000160145.11	rs13065562	<i>KALRN</i>	1	0.506	0.749	tubule
ENSG00000162989.3	rs13033023	<i>KCNJ3</i>	0.995	0.856	0.145	tubule
ENSG00000185359.8	rs12952861	<i>HGS</i>	0.984	0.275	0.185	tubule
ENSG00000135643.4	rs12832224	<i>KCNMB4</i>	0.99	0.704	0.604	tubule
ENSG00000165995.14	rs1277741	<i>CACNB2</i>	0.999	0.799	0.774	tubule
ENSG00000106415.8	rs12702783	<i>GLCCI1</i>	0.962	0.457	0.703	tubule
ENSG00000054654.11	rs1255965	<i>SYNE2</i>	0.972	0.349	0.083	tubule
ENSG00000185056.9	rs12519997	<i>C5orf47</i>	1	0.125	0.336	tubule
ENSG00000141506.9	rs12451818	<i>PIK3R5</i>	0.987	0.415	0.143	tubule
ENSG00000075826.12	rs12098288	<i>SEC31B</i>	0.99	0.386	0.209	tubule
ENSG00000121481.6	rs12080575	<i>RNF2</i>	0.997	0.444	0.018	tubule
ENSG00000145391.9	rs11933640	<i>SETD7</i>	0.988	0.178	0.679	tubule
ENSG00000101333.12	rs11908528	<i>PLCB4</i>	0.997	0.892	0.229	tubule
ENSG00000041988.11	rs11892	<i>THAP3</i>	1	0.155	0.759	tubule
ENSG00000123610.3	rs11886547	<i>TNFAIP6</i>	0.989	0.11	0.109	tubule
ENSG00000197045.8	rs1187583	<i>GMFB</i>	0.98	0.025	0.032	tubule
ENSG00000155849.11	rs11772971	<i>ELMO1</i>	0.991	0.247	0.449	tubule
ENSG00000170860.3	rs11721166	<i>LSM3</i>	0.997	0.473	0.65	tubule
ENSG00000163781.8	rs11714392	<i>TOPBP1</i>	0.985	0.694	0.163	tubule
ENSG00000241973.6	rs11703725	<i>PI4KA</i>	0.98	0.045	0.088	tubule
ENSG00000102910.9	rs114766111	<i>LONP2</i>	0.989	0.799	0.886	tubule
ENSG00000112183.10	rs113930107	<i>RBM24</i>	0.937	0.639	0.488	tubule
ENSG00000123213.18	rs11388694	<i>NLN</i>	1	0.858	0.682	tubule
ENSG00000024048.6	rs113662484	<i>UBR2</i>	0.993	0.728	0.752	tubule
ENSG00000015133.14	rs11282282	<i>CCDC88C</i>	0.989	0.705	0.693	tubule
ENSG00000137802.9	rs1113333	<i>MAPKBP1</i>	0.989	0.248	0.265	tubule
ENSG00000138030.8	rs11126871	<i>KHK</i>	0.997	0.571	0.093	tubule
ENSG00000123106.6	rs11049352	<i>CCDC91</i>	0.999	0.057	0.594	tubule
ENSG00000184575.7	rs10878163	<i>XPOT</i>	0.999	0.549	0.585	tubule
ENSG00000087494.11	rs10842976	<i>PTHLH</i>	0.995	0.065	0.098	tubule
ENSG00000158816.11	rs10799629	<i>VWA5B1</i>	0.994	0.521	0.057	tubule

ENSG00000167987.6	rs10792305	<i>VPS37C</i>	1	0.864	0.13	tubule
ENSG00000165879.7	rs10531234	<i>FRAT1</i>	0.992	0.84	0.643	tubule
ENSG00000150867.9	rs1048244	<i>PIP4K2A</i>	0.999	0.014	0.017	tubule
ENSG00000168702.12	rs10172452	<i>LRP1B</i>	0.999	0.336	0.134	tubule
ENSG00000104687.8	rs10113124	<i>GSR</i>	0.971	0.027	0.075	tubule
ENSG00000169836.4	rs10032228	<i>TACR3</i>	1	0.057	0.174	tubule
ENSG00000183287.9	rs9945378	<i>CCBE1</i>	0.004	1	0.013	glom
ENSG00000197943.5	rs9944386	<i>PLCG2</i>	0	1	0.59	glom
ENSG00000181019.8	rs9935643	<i>NQO1</i>	0.554	0.903	0.434	glom
ENSG00000103966.5	rs9920406	<i>EHD4</i>	0.192	0.998	0.386	glom
ENSG00000081148.11	rs9861774	<i>IMPG2</i>	0.005	1	0.005	glom
ENSG00000173905.4	rs9840882	<i>GOLIM4</i>	0.041	1	0.047	glom
ENSG00000150995.13	rs9836925	<i>ITPR1</i>	0.027	0.985	0.076	glom
ENSG00000104723.16	rs9657257	<i>TUSC3</i>	0.003	0.999	0.027	glom
ENSG00000205302.2	rs9654510	<i>SNX2</i>	0.802	0.987	0.167	glom
ENSG00000136240.5	rs9640023	<i>KDELRL2</i>	0.413	0.995	0.301	glom
ENSG00000133107.10	rs9576388	<i>TRPC4</i>	0	1	0.001	glom
ENSG00000080166.11	rs9561566	<i>DCT</i>	0.069	0.999	0.034	glom
ENSG00000139675.10	rs9536147	<i>HNRNPA1L2</i>	0.633	0.998	0.524	glom
ENSG00000132970.8	rs9512234	<i>WASF3</i>	0.56	0.999	0.105	glom
ENSG00000127863.11	rs9510811	<i>TNFRSF19</i>	0.005	0.995	0.004	glom
ENSG00000171408.9	rs9494443	<i>PDE7B</i>	0.322	0.965	0.222	glom
ENSG00000092820.13	rs9456354	<i>EZR</i>	0.778	0.999	0.001	glom
ENSG00000042088.9	rs942190	<i>TDP1</i>	0.204	0.996	0.038	glom
ENSG00000001561.6	rs9395156	<i>ENPP4</i>	0.118	1	0.018	glom
ENSG00000146281.5	rs9362613	<i>PM20D2</i>	0.371	1	0.087	glom
ENSG00000146242.5	rs9359504	<i>TPBG</i>	0.245	0.972	0.292	glom
ENSG00000112137.12	rs9357660	<i>PHACTR1</i>	0.073	0.998	0.018	glom
ENSG00000172197.9	rs9348413	<i>MBOAT1</i>	0.014	0.992	0.042	glom
ENSG00000081853.13	rs9324853	<i>PCDHGA2</i>	0.813	0.989	0.835	glom
ENSG00000171217.5	rs9322507	<i>CLDN20</i>	0.089	0.996	0.612	glom
ENSG00000178882.9	rs924424	<i>FAM101A</i>	0.067	0.999	0.046	glom
ENSG00000138382.9	rs922297	<i>METTL5</i>	0.011	0.997	0.038	glom
ENSG00000185156.4	rs904168	<i>MFSD6L</i>	0.001	1	0.001	glom
ENSG00000164867.6	rs891512	<i>NOS3</i>	0.49	0.992	0.445	glom
ENSG00000244038.5	rs879086	<i>DDOST</i>	0.746	0.997	0.034	glom
ENSG00000050165.13	rs869659	<i>DKK3</i>	0.325	1	0.661	glom

ENSG00000075223.9	rs853098	<i>SEMA3C</i>	0	1	0	glom
ENSG00000164185.4	rs840466	<i>ZNF474</i>	0.029	0.992	0.007	glom
ENSG00000082196.16	rs840386	<i>C1QTNF3</i>	0.089	0.991	0.473	glom
ENSG00000104783.7	rs8104447	<i>KCNN4</i>	0.592	0.999	0.309	glom
ENSG00000174374.9	rs809439	<i>WBSCR16</i>	0.547	0.984	0.034	glom
ENSG00000073605.14	rs8077456	<i>GSDMB</i>	0.023	0.99	0.098	glom
ENSG00000157456.3	rs8040456	<i>CCNB2</i>	0.033	0.998	0.008	glom
ENSG00000142949.12	rs803679	<i>PTPRF</i>	0.807	0.996	0.119	glom
ENSG00000156103.11	rs80330629	<i>MMP16</i>	0.52	1	0.304	glom
ENSG00000145284.7	rs80326209	<i>SCD5</i>	0.196	0.992	0.694	glom
ENSG00000183655.11	rs8032526	<i>KLHL25</i>	0.145	0.916	0.063	glom
ENSG00000003400.10	rs80304785	<i>CASP10</i>	0.697	0.988	0.083	glom
ENSG00000126107.10	rs80251042	<i>HECTD3</i>	0.162	0.961	0.47	glom
ENSG00000119655.4	rs8009662	<i>NPC2</i>	0.393	0.986	0.047	glom
ENSG00000100522.4	rs8005828	<i>GNPNAT1</i>	0.784	0.961	0.765	glom
ENSG00000161270.15	rs80049961	<i>NPHS1</i>	0.156	0.99	0.77	glom
ENSG00000109576.9	rs79603910	<i>AADAT</i>	0.78	0.992	0.71	glom
ENSG00000139055.2	rs78945911	<i>ERP27</i>	0.085	0.965	0.063	glom
ENSG00000147419.12	rs7828682	<i>CCDC25</i>	0.016	0.978	0.044	glom
ENSG00000046889.14	rs7817257	<i>PREX2</i>	0.162	0.943	0.154	glom
ENSG00000146757.9	rs7806662	<i>ZNF92</i>	0.243	0.992	0.366	glom
ENSG00000157927.12	rs7795134	<i>RADIL</i>	0.268	0.999	0.522	glom
ENSG00000139998.10	rs77490765	<i>RAB15</i>	0.538	0.935	0.223	glom
ENSG00000112419.10	rs7747182	<i>PHACTR2</i>	0.008	0.998	0.106	glom
ENSG00000225830.6	rs77093089	<i>ERCC6</i>	0.039	0.989	0.436	glom
ENSG00000168938.5	rs7701105	<i>PPIC</i>	0.738	0.998	0.889	glom
ENSG00000145358.2	rs7698355	<i>DDIT4L</i>	0.295	0.999	0.19	glom
ENSG00000126822.11	rs76320564	<i>PLEKHG3</i>	0.227	1	0.827	glom
ENSG00000126803.8	rs76320564	<i>HSPA2</i>	0.001	1	0.004	glom
ENSG00000075568.12	rs7589018	<i>TMEM131</i>	0.032	0.976	0.547	glom
ENSG00000115896.11	rs7559008	<i>PLCL1</i>	0.769	0.965	0.242	glom
ENSG00000160075.10	rs7520996	<i>SSU72</i>	0.047	0.999	0.026	glom
ENSG00000124370.6	rs75174586	<i>MCEE</i>	0.782	0.994	0.883	glom
ENSG00000131778.13	rs75167093	<i>CHD1L</i>	0.379	1	0.137	glom
ENSG00000206527.5	rs75085211	<i>PTPLB</i>	0.293	1	0.206	glom
ENSG00000184575.7	rs7487873	<i>XPOT</i>	0.056	0.995	0.015	glom
ENSG00000134545.9	rs7485868	<i>KLRC1</i>	0.715	0.988	0.762	glom

ENSG00000164418.15	rs74816524	<i>GRIK2</i>	0.137	0.982	0.134	glom
ENSG00000172057.5	rs74727658	<i>ORMDL3</i>	0.001	1	0	glom
ENSG00000005108.11	rs7458129	<i>THSD7A</i>	0.023	1	0.032	glom
ENSG00000110801.9	rs745327	<i>PSMD9</i>	0.272	0.995	0.352	glom
ENSG00000153214.5	rs7422195	<i>TMEM87B</i>	0.031	0.998	0.072	glom
ENSG00000126804.9	rs74056359	<i>ZBTB1</i>	0.174	1	0.821	glom
ENSG00000082781.7	rs7373878	<i>ITGB5</i>	0.173	1	0.048	glom
ENSG00000167244.13	rs736610	<i>IGF2</i>	0.8	0.987	0.354	glom
ENSG00000167397.10	rs73530203	<i>VKORC1</i>	0.002	1	0	glom
ENSG00000198901.9	rs73502775	<i>PRC1</i>	0.111	0.986	0.129	glom
ENSG00000184056.10	rs73502775	<i>VPS33B</i>	0.046	1	0.568	glom
ENSG00000186231.12	rs734667	<i>KLHL32</i>	0.652	0.942	0.212	glom
ENSG00000071242.7	rs734560	<i>RPS6KA2</i>	0.144	0.991	0.078	glom
ENSG00000102466.11	rs7328708	<i>FGF14</i>	0.255	1	0.341	glom
ENSG00000135549.10	rs72971001	<i>PKIB</i>	0.038	0.977	0.021	glom
ENSG00000138316.6	rs72814507	<i>ADAMTS14</i>	0.041	1	0	glom
ENSG00000152527.9	rs72790985	<i>PLEKHH2</i>	0.84	0.993	0.815	glom
ENSG00000156886.11	rs72789314	<i>ITGAD</i>	0.77	0.993	0.481	glom
ENSG00000153936.12	rs72722270	<i>HS2ST1</i>	0.208	1	0.142	glom
ENSG00000164761.4	rs72682433	<i>TNFRSF11B</i>	0.152	0.997	0.031	glom
ENSG00000147677.6	rs72679554	<i>EIF3H</i>	0.176	0.942	0.058	glom
ENSG00000213799.6	rs7253970	<i>ZNF845</i>	0.121	0.987	0.238	glom
ENSG00000183230.12	rs72345087	<i>CTNNA3</i>	0.183	0.999	0.566	glom
ENSG00000149131.11	rs722823	<i>SERPING1</i>	0.897	0.996	0.122	glom
ENSG00000129197.10	rs7217828	<i>RPAIN</i>	0.345	0.991	0.291	glom
ENSG00000183908.5	rs72148264	<i>LRRC55</i>	0.71	0.991	0.46	glom
ENSG00000205078.5	rs7202678	<i>SYCE1L</i>	0.74	0.995	0.075	glom
ENSG00000182054.5	rs7182369	<i>IDH2</i>	0.777	0.985	0.844	glom
ENSG00000139946.5	rs7160120	<i>PELI2</i>	0.21	0.991	0.172	glom
ENSG00000258986.2	rs7154471	<i>TMEM179</i>	0.563	0.994	0.649	glom
ENSG00000119608.8	rs7149377	<i>PROX2</i>	0.1	0.925	0.057	glom
ENSG00000137497.13	rs7115200	<i>NUMA1</i>	0.078	0.978	0.094	glom
ENSG00000170743.12	rs7112565	<i>SYT9</i>	0.003	1	0.003	glom
ENSG00000013583.4	rs71064366	<i>HEBP1</i>	0.189	1	0.008	glom
ENSG00000196821.5	rs71002547	<i>C6orf106</i>	0.839	0.994	0.77	glom
ENSG00000133661.11	rs7084667	<i>SFTPD</i>	0.038	1	0.049	glom
ENSG00000174482.6	rs7037152	<i>LINGO2</i>	0.016	0.999	0.001	glom

ENSG00000147676.9	rs7017788	<i>MAL2</i>	0.073	1	0.009	glom
ENSG00000137574.6	rs6998538	<i>TGS1</i>	0.652	0.987	0.612	glom
ENSG00000168899.4	rs699664	<i>VAMP5</i>	0.129	0.966	0.41	glom
ENSG00000153317.10	rs6995219	<i>ASAP1</i>	0.518	0.996	0.631	glom
ENSG00000171243.7	rs6949481	<i>SOSTDC1</i>	0.025	1	0.228	glom
ENSG00000106299.7	rs6945841	<i>WASL</i>	0.399	0.994	0.162	glom
ENSG00000095951.12	rs6926422	<i>HIVEP1</i>	0.001	1	0.001	glom
ENSG00000152684.10	rs6887358	<i>PELO</i>	0.201	1	0.133	glom
ENSG00000171444.13	rs6879633	<i>MCC</i>	0.125	0.999	0.682	glom
ENSG00000137449.11	rs6850085	<i>CPEB2</i>	0.006	0.997	0.017	glom
ENSG00000138738.6	rs6828945	<i>PRDM5</i>	0.107	0.993	0.18	glom
ENSG00000153012.7	rs6821425	<i>LGI2</i>	0.788	0.989	0.715	glom
ENSG00000169836.4	rs6815062	<i>TACR3</i>	0.317	0.951	0.11	glom
ENSG00000163430.5	rs6791815	<i>FSTL1</i>	0.062	0.941	0.043	glom
ENSG00000028839.5	rs67735812	<i>TBPL1</i>	0.001	0.999	0.002	glom
ENSG00000114279.9	rs6771586	<i>FGF12</i>	0.118	0.967	0.057	glom
ENSG00000159915.8	rs67586858	<i>ZNF233</i>	0.001	1	0.103	glom
ENSG00000187837.2	rs67491322	<i>HIST1H1C</i>	0.809	0.985	0.037	glom
ENSG00000178927.12	rs67228117	<i>C17orf62</i>	0.362	0.996	0.269	glom
ENSG00000155438.7	rs6715671	<i>MKI67IP</i>	0.507	0.98	0.153	glom
ENSG00000115685.10	rs6710177	<i>PPP1R7</i>	0.034	0.997	0.018	glom
ENSG00000116266.6	rs6696787	<i>STXBP3</i>	0.132	0.992	0.645	glom
ENSG00000116396.9	rs6682717	<i>KCNC4</i>	0.023	1	0.056	glom
ENSG00000132854.14	rs6680736	<i>KANK4</i>	0.861	0.997	0.544	glom
ENSG00000023909.5	rs6675820	<i>GCLM</i>	0.887	0.999	0.231	glom
ENSG00000186790.4	rs6673934	<i>FOXE3</i>	0.004	1	0.376	glom
ENSG00000082482.9	rs6665177	<i>KCNK2</i>	0.235	1	0.063	glom
ENSG00000168297.11	rs66520518	<i>PXK</i>	0.658	1	0.753	glom
ENSG00000155256.13	rs6584131	<i>ZFYVE27</i>	0.093	0.981	0.024	glom
ENSG00000082175.10	rs658370	<i>PGR</i>	0.01	1	0	glom
ENSG00000100558.4	rs6573770	<i>PLEK2</i>	0.033	1	0.301	glom
ENSG00000111961.12	rs6570823	<i>SASH1</i>	0.124	0.99	0.089	glom
ENSG00000186153.12	rs6564507	<i>WWOX</i>	0.243	0.999	0.003	glom
ENSG00000095739.7	rs655766	<i>BAMBI</i>	0.015	1	0.705	glom
ENSG00000137486.12	rs654079	<i>ARRB1</i>	0.041	0.998	0.122	glom
ENSG00000107863.12	rs6482433	<i>ARHGAP21</i>	0	1	0	glom
ENSG00000153956.11	rs6467896	<i>CACNA2D1</i>	0.296	0.999	0.008	glom

ENSG00000106537.7	rs6461275	<i>TSPAN13</i>	0.76	1	0.583	glom
ENSG00000122085.12	rs6437234	<i>MTERFD2</i>	0.011	0.99	0.01	glom
ENSG00000127324.4	rs6421232	<i>TSPAN8</i>	0.066	0.981	0.017	glom
ENSG00000041982.10	rs62555443	<i>TNC</i>	0.294	0.976	0.707	glom
ENSG00000164932.8	rs62526538	<i>CTHRC1</i>	0.499	0.989	0.366	glom
ENSG00000221866.5	rs62466387	<i>PLXNA4</i>	0.059	0.996	0.108	glom
ENSG00000031003.6	rs62381759	<i>FAM13B</i>	0.683	0.995	0.763	glom
ENSG00000152990.9	rs62303389	<i>GPR125</i>	0.109	0.968	0.071	glom
ENSG00000093183.9	rs62247332	<i>SEC22C</i>	0.14	0.943	0.179	glom
ENSG00000100097.7	rs62236671	<i>LGALS1</i>	0.09	1	0.18	glom
ENSG00000171105.9	rs62111429	<i>INSR</i>	0.443	0.995	0.136	glom
ENSG00000198838.7	rs62010498	<i>RYR3</i>	0.601	0.978	0.499	glom
ENSG00000198774.3	rs61930009	<i>RASSF9</i>	0.011	1	0.017	glom
ENSG00000213190.2	rs61817972	<i>MLLT11</i>	0.171	0.987	0.103	glom
ENSG00000117533.10	rs61805806	<i>VAMP4</i>	0.122	0.989	0.05	glom
ENSG00000269190.1	rs617085	<i>FBXO17</i>	0.43	0.998	0.421	glom
ENSG00000088280.14	rs61644781	<i>ASAP3</i>	0.657	0.997	0.556	glom
ENSG00000196196.2	rs61523115	<i>HRCT1</i>	0.789	0.932	0.313	glom
ENSG00000125901.5	rs6138878	<i>MRPS26</i>	0.116	0.956	0.135	glom
ENSG00000132669.8	rs6112585	<i>RIN2</i>	0.029	0.962	0.068	glom
ENSG00000088766.7	rs6107643	<i>CRLS1</i>	0.548	0.939	0.394	glom
ENSG00000101230.5	rs6105074	<i>ISM1</i>	0.594	0.983	0.693	glom
ENSG00000101460.8	rs6087577	<i>MAP1LC3A</i>	0.004	1	0.141	glom
ENSG00000101290.9	rs6053188	<i>CDS2</i>	0.003	1	0	glom
ENSG00000132639.8	rs6039820	<i>SNAP25</i>	0.004	0.999	0.046	glom
ENSG00000184182.14	rs59412705	<i>UBE2F</i>	0.61	0.999	0.783	glom
ENSG00000136999.4	rs58814289	<i>NOV</i>	0.247	0.997	0.242	glom
ENSG00000169087.6	rs5852309	<i>HSPBAP1</i>	0.079	0.996	0.735	glom
ENSG00000117394.15	rs58062906	<i>SLC2A1</i>	0.332	0.99	0.159	glom
ENSG00000203880.7	rs575770	<i>PCMTD2</i>	0.872	0.984	0.201	glom
ENSG00000100302.6	rs5755514	<i>RASD2</i>	0.059	0.972	0.275	glom
ENSG00000100296.9	rs5752785	<i>THOC5</i>	0.718	0.964	0.341	glom
ENSG00000240972.1	rs5751777	<i>MIF</i>	0.009	1	0	glom
ENSG00000186812.8	rs574192	<i>ZNF397</i>	0.368	0.99	0.769	glom
ENSG00000091164.8	rs573399	<i>TXNL1</i>	0.891	0.995	0.601	glom
ENSG00000137699.12	rs573211	<i>TRIM29</i>	0.681	0.999	0.007	glom
ENSG00000158828.5	rs572529	<i>PINK1</i>	0.023	0.997	0.002	glom

ENSG00000100749.3	rs56871417	<i>VRK1</i>	0.765	0.988	0.862	glom
ENSG00000049618.17	rs56324655	<i>ARID1B</i>	0.88	0.997	0.243	glom
ENSG00000143434.11	rs56299877	<i>SEMA6C</i>	0.178	0.999	0.088	glom
ENSG00000147364.12	rs56169924	<i>FBXO25</i>	0.011	0.996	0.012	glom
ENSG00000156219.12	rs55975346	<i>ART3</i>	0.074	1	0.094	glom
ENSG00000153391.11	rs55833596	<i>INO80C</i>	0.254	0.96	0.654	glom
ENSG00000153246.7	rs55761996	<i>PLA2R1</i>	0.005	0.997	0.048	glom
ENSG00000135272.5	rs55735860	<i>MDFIC</i>	0.026	0.981	0.037	glom
ENSG00000204397.3	rs530537	<i>CARD16</i>	0.123	0.985	0.136	glom
ENSG00000170571.7	rs530430	<i>EMB</i>	0.839	1	0.675	glom
ENSG00000163710.3	rs5003282	<i>PCOLCE2</i>	0.02	1	0.759	glom
ENSG00000166685.7	rs4969023	<i>COG1</i>	0.777	0.992	0.498	glom
ENSG00000187848.8	rs4964926	<i>P2RX2</i>	0.207	0.974	0.4	glom
ENSG00000137500.5	rs494791	<i>CCDC90B</i>	0	1	0	glom
ENSG00000156603.10	rs4939181	<i>MED19</i>	0.614	0.998	0.031	glom
ENSG00000110777.7	rs4938510	<i>POU2AF1</i>	0.011	1	0.559	glom
ENSG00000164609.5	rs4921282	<i>SLU7</i>	0.793	0.988	0.232	glom
ENSG00000011105.7	rs489298	<i>TSPAN9</i>	0.169	1	0.01	glom
ENSG00000147485.8	rs4873510	<i>PXDNL</i>	0.07	0.983	0.017	glom
ENSG00000151883.12	rs4865552	<i>PARP8</i>	0.231	0.985	0.639	glom
ENSG00000164054.11	rs4858819	<i>SHISA5</i>	0.372	0.983	0.111	glom
ENSG00000187098.10	rs4855323	<i>MITF</i>	0.256	0.999	0.026	glom
ENSG00000135945.5	rs4851179	<i>REV1</i>	0.772	0.997	0.039	glom
ENSG00000253958.1	rs4841016	<i>CLDN23</i>	0.263	1	0.031	glom
ENSG00000166974.8	rs482405	<i>MAPRE2</i>	0.096	1	0.709	glom
ENSG00000185052.7	rs4813351	<i>SLC24A3</i>	0	1	0.001	glom
ENSG00000058085.10	rs481023	<i>LAMC2</i>	0.141	0.968	0.132	glom
ENSG00000167635.7	rs4806283	<i>ZNF146</i>	0.547	1	0.007	glom
ENSG00000099326.4	rs4801535	<i>MZF1</i>	0.055	0.936	0.403	glom
ENSG00000172660.7	rs4795088	<i>TAF15</i>	0.001	1	0	glom
ENSG00000134533.2	rs4764146	<i>RERG</i>	0.231	0.985	0.09	glom
ENSG00000129749.3	rs4758541	<i>CHRNA10</i>	0.358	0.978	0.064	glom
ENSG00000042429.6	rs4753498	<i>MED17</i>	0.84	1	0.551	glom
ENSG00000134996.11	rs4745381	<i>OSTF1</i>	0.013	0.995	0.067	glom
ENSG00000164751.10	rs4735749	<i>PEX2</i>	0.41	0.991	0.505	glom
ENSG00000086289.7	rs4723739	<i>EPDR1</i>	0.003	1	0.018	glom
ENSG00000205269.4	rs4713594	<i>TMEM170B</i>	0	1	0.046	glom

ENSG00000144560.9	rs4684078	<i>VGLL4</i>	0.198	0.987	0.148	glom
ENSG00000183625.10	rs4683219	<i>CCR3</i>	0.233	0.998	0.109	glom
ENSG00000163687.9	rs4681669	<i>DNASE1L3</i>	0.104	0.996	0.183	glom
ENSG00000176720.3	rs4675801	<i>BOK</i>	0.371	0.998	0.008	glom
ENSG00000144283.17	rs4664960	<i>PKP4</i>	0.855	0.992	0.161	glom
ENSG00000163875.11	rs4653296	<i>MEAF6</i>	0.168	1	0.694	glom
ENSG00000184226.10	rs4614602	<i>PCDH9</i>	0.032	0.99	0.638	glom
ENSG00000182768.7	rs4595780	<i>NGRN</i>	0.48	0.942	0.097	glom
ENSG00000185112.4	rs4458311	<i>FAM43A</i>	0.476	0.996	0.01	glom
ENSG00000179598.5	rs4399589	<i>PLD6</i>	0.849	0.999	0.843	glom
ENSG00000162817.6	rs437078	<i>C1orf115</i>	0.188	0.914	0.122	glom
ENSG00000106868.12	rs4363271	<i>SUSD1</i>	0.175	0.996	0.058	glom
ENSG00000132394.6	rs4362738	<i>EEFSEC</i>	0.888	0.994	0.319	glom
ENSG00000175329.8	rs4343560	<i>ISX</i>	0.109	0.976	0.282	glom
ENSG00000071127.12	rs4318649	<i>WDR1</i>	0.71	1	0.863	glom
ENSG00000106052.9	rs42098	<i>TAX1BP1</i>	0.446	0.989	0.039	glom
ENSG00000128534.3	rs41944	<i>NAA38</i>	0.586	0.991	0.896	glom
ENSG00000103160.7	rs4150119	<i>HSDL1</i>	0.136	0.991	0.052	glom
ENSG00000152104.7	rs41277178	<i>PTPN14</i>	0.606	0.96	0.519	glom
ENSG00000115073.6	rs4069261	<i>ACTR1B</i>	0.023	0.967	0.027	glom
ENSG00000163393.8	rs4046190	<i>SLC22A15</i>	0.445	1	0.686	glom
ENSG00000119537.11	rs402348	<i>KDSR</i>	0.793	0.998	0.651	glom
ENSG00000100439.6	rs3811189	<i>ABHD4</i>	0	1	0	glom
ENSG00000129562.6	rs3811189	<i>DAD1</i>	0	1	0	glom
ENSG00000145687.11	rs3805726	<i>SSBP2</i>	0.068	0.965	0.023	glom
ENSG00000118473.17	rs3795530	<i>SGIP1</i>	0.051	0.998	0.04	glom
ENSG00000213246.2	rs3785496	<i>SUPT4H1</i>	0.699	0.985	0.382	glom
ENSG00000197555.5	rs3784062	<i>SIPA1L1</i>	0.056	0.999	0.005	glom
ENSG00000164031.12	rs3775511	<i>DNAJB14</i>	0.056	1	0.052	glom
ENSG00000116106.7	rs3770191	<i>EPHA4</i>	0.033	1	0.534	glom
ENSG00000003987.9	rs3764796	<i>MTMR7</i>	0.473	0.987	0.024	glom
ENSG00000114473.9	rs3749257	<i>IQCG</i>	0.096	0.998	0.878	glom
ENSG00000153029.10	rs3747956	<i>MR1</i>	0.846	1	0.028	glom
ENSG00000115946.3	rs374617152	<i>PNO1</i>	0.484	0.973	0.464	glom
ENSG00000166140.13	rs3743034	<i>ZFYVE19</i>	0.106	0.983	0.246	glom
ENSG00000134569.5	rs3740973	<i>LRP4</i>	0.255	0.927	0.428	glom
ENSG00000170631.10	rs3735789	<i>ZNF16</i>	0	1	0	glom

ENSG00000164574.11	rs3734083	<i>GALNT10</i>	0.231	0.996	0.084	glom
ENSG00000182272.7	rs372884616	<i>B4GALNT4</i>	0.485	1	0.057	glom
ENSG00000198270.8	rs372000525	<i>TMEM116</i>	0.749	1	0.419	glom
ENSG00000156475.14	rs369325004	<i>PPP2R2B</i>	0.019	0.975	0.024	glom
ENSG00000077809.8	rs36044436	<i>GTF2I</i>	0.598	0.993	0.058	glom
ENSG00000151881.10	rs36013953	<i>C5orf28</i>	0.006	1	0.04	glom
ENSG00000181264.4	rs36011588	<i>TMEM136</i>	0.052	1	0.084	glom
ENSG00000187720.10	rs35939630	<i>THSD4</i>	0.011	1	0.033	glom
ENSG00000107566.9	rs35614792	<i>ERLIN1</i>	0.108	0.953	0.153	glom
ENSG00000197442.8	rs35387800	<i>MAP3K5</i>	0	1	0	glom
ENSG00000170275.10	rs35291321	<i>CRTAP</i>	0.581	0.993	0.077	glom
ENSG00000108219.10	rs35269135	<i>TSPAN14</i>	0.643	0.984	0.087	glom
ENSG00000164120.9	rs35179748	<i>HPGD</i>	0.844	0.993	0.717	glom
ENSG00000113580.10	rs35165195	<i>NR3C1</i>	0.813	0.988	0.051	glom
ENSG00000115919.10	rs35046471	<i>KYNU</i>	0.849	0.993	0.728	glom
ENSG00000143771.7	rs35031726	<i>CNIH4</i>	0.81	0.991	0.349	glom
ENSG00000174574.11	rs34848020	<i>AKIRIN1</i>	0.523	0.968	0.516	glom
ENSG00000161888.7	rs34823295	<i>SPC24</i>	0.195	0.989	0.374	glom
ENSG00000182827.8	rs34809641	<i>ACBD3</i>	0.629	0.96	0.527	glom
ENSG00000111796.3	rs34786688	<i>KLRB1</i>	0.039	0.988	0.031	glom
ENSG00000019169.9	rs34584553	<i>MARCO</i>	0.399	0.999	0.195	glom
ENSG00000077063.6	rs34453766	<i>CTTNBP2</i>	0.025	0.999	0.026	glom
ENSG00000149532.11	rs34378918	<i>CPSF7</i>	0.747	0.967	0.767	glom
ENSG00000107854.5	rs34370527	<i>TNKS2</i>	0.038	0.999	0.042	glom
ENSG00000118402.5	rs343686	<i>ELOVL4</i>	0.004	1	0.869	glom
ENSG00000167037.14	rs34190801	<i>SGSM1</i>	0.631	0.996	0.194	glom
ENSG00000106013.8	rs34159932	<i>ANKRD7</i>	0.389	0.945	0.486	glom
ENSG00000170776.15	rs338533	<i>AKAP13</i>	0.002	1	0.156	glom
ENSG00000169752.12	rs334945	<i>NRG4</i>	0.043	1	0.006	glom
ENSG00000128594.3	rs322828	<i>LRRC4</i>	0.162	0.994	0.194	glom
ENSG00000182158.10	rs3087067	<i>CREB3L2</i>	0	1	0.056	glom
ENSG00000182718.12	rs3068	<i>ANXA2</i>	0.007	0.998	0.004	glom
ENSG00000170917.9	rs306005	<i>NUDT6</i>	0.839	0.998	0.483	glom
ENSG00000136634.5	rs3024490	<i>IL10</i>	0.06	0.997	0.392	glom
ENSG00000138172.6	rs2986014	<i>CALHM2</i>	0.708	0.983	0.412	glom
ENSG00000196150.9	rs2975249	<i>ZNF250</i>	0.001	1	0.039	glom
ENSG00000196268.7	rs29708	<i>ZNF493</i>	0.059	0.993	0.379	glom

ENSG00000103512.10	rs2966186	<i>NOMO1</i>	0.777	0.997	0.679	glom
ENSG00000185716.7	rs2945466	<i>C16orf52</i>	0.58	0.988	0.446	glom
ENSG00000135333.9	rs2875646	<i>EPHA7</i>	0.012	1	0.059	glom
ENSG00000180855.11	rs28691232	<i>ZNF443</i>	0.02	0.991	0.183	glom
ENSG00000163141.14	rs2864700	<i>BNIP1</i>	0.857	0.999	0.282	glom
ENSG00000185442.8	rs285729	<i>FAM174B</i>	0.208	0.999	0.139	glom
ENSG00000167004.8	rs28532626	<i>PDIA3</i>	0.116	0.972	0.176	glom
ENSG00000204371.7	rs2844517	<i>EHMT2</i>	0.617	0.977	0.362	glom
ENSG00000198576.2	rs28403912	<i>ARC</i>	0.477	0.988	0.344	glom
ENSG00000198160.10	rs2815373	<i>MIER1</i>	0.831	1	0.005	glom
ENSG00000121741.12	rs2812727	<i>ZMYM2</i>	0.39	0.986	0.051	glom
ENSG00000156113.16	rs2812428	<i>KCNMA1</i>	0.06	0.932	0.048	glom
ENSG00000116194.8	rs2811284	<i>ANGPTL1</i>	0.078	1	0.579	glom
ENSG00000154309.7	rs2789957	<i>DISP1</i>	0.001	1	0.001	glom
ENSG00000165799.4	rs2765901	<i>RNASE7</i>	0.039	0.986	0.557	glom
ENSG00000115183.9	rs264656	<i>TANC1</i>	0.019	0.973	0.019	glom
ENSG00000178033.5	rs2640871	<i>FAM26E</i>	0.001	1	0.017	glom
ENSG00000065534.14	rs2626017	<i>MYLK</i>	0.391	0.995	0.875	glom
ENSG00000136404.11	rs2621228	<i>TM6SF1</i>	0.053	0.958	0.081	glom
ENSG00000177432.6	rs2604209	<i>NAP1L5</i>	0.811	0.999	0.573	glom
ENSG00000204954.5	rs2583260	<i>C12orf73</i>	0.01	1	0.018	glom
ENSG00000178445.8	rs2578267	<i>GLDC</i>	0.887	0.995	0.811	glom
ENSG00000138385.11	rs2556352	<i>SSB</i>	0.009	0.992	0.026	glom
ENSG00000196352.9	rs2490255	<i>CD55</i>	0.004	1	0.001	glom
ENSG00000099246.12	rs2477337	<i>RAB18</i>	0.58	0.999	0.515	glom
ENSG00000138594.8	rs2470619	<i>TMOD3</i>	0	1	0	glom
ENSG00000144369.8	rs2460766	<i>FAM171B</i>	0.002	1	0.001	glom
ENSG00000167535.3	rs2446985	<i>CACNB3</i>	0.716	0.995	0.085	glom
ENSG00000138193.10	rs2433027	<i>PLCE1</i>	0.031	1	0.641	glom
ENSG00000125814.13	rs2424529	<i>NAPB</i>	0.008	0.996	0.048	glom
ENSG00000144048.6	rs2421664	<i>DUSP11</i>	0.03	0.968	0.017	glom
ENSG00000088812.13	rs238722	<i>ATRNL1</i>	0.561	0.997	0.166	glom
ENSG00000198363.11	rs2350920	<i>ASPH</i>	0.078	0.994	0.86	glom
ENSG00000135842.12	rs234103	<i>FAM129A</i>	0.406	1	0.239	glom
ENSG00000162076.8	rs2335464	<i>FLYWCH2</i>	0	1	0	glom
ENSG00000100823.7	rs2319623	<i>APEX1</i>	0.67	0.941	0.284	glom
ENSG00000137825.6	rs2297381	<i>ITPKA</i>	0.001	0.999	0.002	glom

ENSG00000062524.11	rs2297379	<i>LTK</i>	0.128	1	0	glom
ENSG00000100345.16	rs2294356	<i>MYH9</i>	0.282	0.996	0.259	glom
ENSG00000198466.8	rs2278290	<i>ZNF587</i>	0.148	1	0.275	glom
ENSG00000150403.13	rs2259353	<i>TMCO3</i>	0.536	1	0.302	glom
ENSG00000152822.9	rs2247571	<i>GRM1</i>	0.217	0.982	0.209	glom
ENSG00000179603.13	rs2237807	<i>GRM8</i>	0.285	0.978	0.498	glom
ENSG00000145216.11	rs2200226	<i>FIP1L1</i>	0.062	0.98	0.05	glom
ENSG00000064763.6	rs2194518	<i>FAR2</i>	0.087	0.998	0.155	glom
ENSG00000203993.3	rs2183138	<i>C9orf37</i>	0.124	0.958	0.075	glom
ENSG00000214026.6	rs217236	<i>MRPL23</i>	0.515	0.995	0.648	glom
ENSG00000198610.6	rs2154305	<i>AKR1C4</i>	0.077	0.973	0.122	glom
ENSG00000149596.6	rs2143607	<i>JPH2</i>	0.187	0.99	0.088	glom
ENSG00000077549.13	rs214343	<i>CAPZB</i>	0.011	1	0.077	glom
ENSG00000152683.10	rs212725	<i>SLC30A6</i>	0.783	0.999	0.435	glom
ENSG00000138448.7	rs2119863	<i>ITGAV</i>	0	1	0	glom
ENSG00000073598.5	rs210837	<i>FNDCA8</i>	0.041	0.974	0.072	glom
ENSG00000153048.6	rs2091633	<i>CARHSP1</i>	0.621	0.97	0.194	glom
ENSG00000079691.15	rs2078527	<i>LRRCL6A</i>	0.433	0.992	0.082	glom
ENSG00000013725.10	rs2074223	<i>CD6</i>	0.045	1	0.579	glom
ENSG00000160307.5	rs2073380	<i>S100B</i>	0.003	1	0.007	glom
ENSG00000143786.3	rs2050626	<i>CNIH3</i>	0.238	0.981	0.25	glom
ENSG00000175093.4	rs2042759	<i>SPSB4</i>	0.039	0.986	0.033	glom
ENSG00000133048.8	rs201945747	<i>CHI3L1</i>	0.747	0.998	0.512	glom
ENSG00000189134.3	rs200972	<i>NKAPL</i>	0.057	0.983	0.055	glom
ENSG00000105223.14	rs1991460	<i>PLD3</i>	0.614	0.998	0.78	glom
ENSG00000066027.7	rs1967116	<i>PPP2R5A</i>	0.003	0.999	0.165	glom
ENSG00000110723.7	rs1940219	<i>EXPH5</i>	0.176	0.989	0.191	glom
ENSG00000169129.10	rs1889453	<i>AFAP1L2</i>	0.067	0.997	0.033	glom
ENSG00000171206.9	rs187271634	<i>TRIM8</i>	0.886	0.999	0.846	glom
ENSG00000179270.6	rs1867944	<i>C2orf71</i>	0.471	0.992	0.599	glom
ENSG00000188580.9	rs1828363	<i>NKAIN2</i>	0.014	1	0.096	glom
ENSG00000131773.9	rs17553723	<i>KHDRBS3</i>	0.89	0.988	0.794	glom
ENSG00000054523.12	rs17401588	<i>KIF1B</i>	0.01	0.999	0.006	glom
ENSG00000164506.10	rs17258731	<i>STXBP5</i>	0.083	0.923	0.257	glom
ENSG00000013374.11	rs17173096	<i>NUB1</i>	0.676	0.988	0.08	glom
ENSG00000132570.10	rs17168355	<i>PCBD2</i>	0.167	0.96	0.216	glom
ENSG00000172939.4	rs1696549	<i>OXSRI</i>	0.84	0.995	0.35	glom

ENSG00000138604.5	rs16952970	<i>GLCE</i>	0.545	0.959	0.107	glom
ENSG00000154975.9	rs16950591	<i>CA10</i>	0.711	0.996	0.764	glom
ENSG00000134317.13	rs16867266	<i>GRHL1</i>	0.174	0.997	0.335	glom
ENSG00000104290.6	rs164666	<i>FZD3</i>	0.274	0.997	0.181	glom
ENSG00000137962.8	rs1628833	<i>ARHGAP29</i>	0.358	0.99	0.219	glom
ENSG00000035681.3	rs1582824	<i>NSMAF</i>	0.479	1	0.885	glom
ENSG00000101166.11	rs151354	<i>SLMO2</i>	0.019	0.996	0.015	glom
ENSG00000138587.5	rs151081450	<i>MNS1</i>	0.861	0.991	0.479	glom
ENSG00000196502.7	rs150072875	<i>SULT1A1</i>	0.856	0.998	0.666	glom
ENSG00000097096.8	rs1498380	<i>SYDE2</i>	0	1	0.823	glom
ENSG00000025156.8	rs149578348	<i>HSF2</i>	0.13	0.999	0.059	glom
ENSG00000198105.7	rs145766788	<i>ZNF248</i>	0.787	0.992	0.188	glom
ENSG00000083720.8	rs145354627	<i>OXCT1</i>	0.138	0.959	0.035	glom
ENSG00000144681.6	rs1450004	<i>STAC</i>	0.166	0.988	0.108	glom
ENSG00000160801.9	rs143048713	<i>PTH1R</i>	0.058	1	0.018	glom
ENSG00000116473.10	rs142267659	<i>RAP1A</i>	0	1	0.001	glom
ENSG00000099256.14	rs1414459	<i>PRTFDC1</i>	0.002	0.998	0.003	glom
ENSG00000214575.5	rs140864941	<i>CPEB1</i>	0.425	1	0.045	glom
ENSG00000109133.8	rs140840052	<i>TMEM33</i>	0.571	0.974	0.122	glom
ENSG00000187147.13	rs1407144	<i>RNF220</i>	0	1	0	glom
ENSG00000136813.10	rs140019098	<i>KIAA0368</i>	0	1	0.001	glom
ENSG00000110203.4	rs139130389	<i>FOLR3</i>	0.058	0.946	0.049	glom
ENSG00000196588.10	rs139067	<i>MKL1</i>	0.013	1	0.269	glom
ENSG00000130818.6	rs138985622	<i>ZNF426</i>	0.54	0.999	0.507	glom
ENSG00000111639.3	rs13842	<i>MRPL51</i>	0.011	0.991	0.009	glom
ENSG00000100227.13	rs137099	<i>POLDIP3</i>	0.821	0.993	0.341	glom
ENSG00000145246.9	rs13434696	<i>ATP10D</i>	0.029	0.998	0.057	glom
ENSG00000115084.8	rs13389454	<i>SLC35F5</i>	0.668	0.993	0.296	glom
ENSG00000029534.15	rs13257621	<i>ANK1</i>	0.144	0.901	0.076	glom
ENSG00000164292.8	rs13188464	<i>RHOBTB3</i>	0.039	1	0.1	glom
ENSG00000185305.6	rs13180005	<i>ARL15</i>	0.325	0.999	0.229	glom
ENSG00000123739.6	rs13127878	<i>PLA2G12A</i>	0.86	0.996	0.529	glom
ENSG00000154310.12	rs13075080	<i>TNIF</i>	0	1	0	glom
ENSG00000177311.6	rs13067032	<i>ZBTB38</i>	0.084	0.999	0.356	glom
ENSG00000130702.9	rs13036495	<i>LAMA5</i>	0.049	0.99	0.041	glom
ENSG00000116001.11	rs13018784	<i>TIA1</i>	0.132	0.985	0.507	glom
ENSG00000115816.9	rs12993090	<i>CEBPZ</i>	0.064	1	0.048	glom

ENSG00000108578.10	rs12938714	<i>BLMH</i>	0.118	0.995	0.812	glom
ENSG00000007237.14	rs12937220	<i>GAS7</i>	0	1	0	glom
ENSG00000138593.4	rs12915677	<i>SECISBP2L</i>	0.187	0.962	0.624	glom
ENSG00000101079.16	rs1291132	<i>NDRG3</i>	0.811	0.961	0.128	glom
ENSG00000111196.5	rs12819066	<i>MAGOHB</i>	0.129	0.998	0.584	glom
ENSG00000107669.13	rs12773914	<i>ATE1</i>	0.793	0.994	0.146	glom
ENSG00000164659.10	rs12704316	<i>KIAA1324L</i>	0.725	0.997	0.805	glom
ENSG00000169047.5	rs12694703	<i>IRS1</i>	0.058	0.996	0.027	glom
ENSG00000107263.14	rs12683159	<i>RAPGEF1</i>	0.568	0.996	0.484	glom
ENSG00000167642.8	rs12611084	<i>SPINT2</i>	0.002	0.999	0.001	glom
ENSG00000070366.9	rs12603057	<i>SMG6</i>	0.099	1	0.881	glom
ENSG00000148926.5	rs12577195	<i>ADM</i>	0.551	0.992	0.357	glom
ENSG00000163513.13	rs12494825	<i>TGFBP2</i>	0.483	0.982	0.539	glom
ENSG00000091409.10	rs12478419	<i>ITGA6</i>	0.042	0.988	0.022	glom
ENSG00000144036.10	rs12471312	<i>EXOC6B</i>	0.01	0.999	0.053	glom
ENSG00000239887.3	rs12403364	<i>C1orf226</i>	0.002	1	0.001	glom
ENSG00000157181.10	rs12403321	<i>C1orf27</i>	0.786	0.998	0.576	glom
ENSG00000143851.11	rs12401678	<i>PTPN7</i>	0.021	0.996	0.012	glom
ENSG00000073711.6	rs12330725	<i>PPP2R3A</i>	0.681	0.959	0.047	glom
ENSG00000154114.8	rs12274094	<i>TBCEL</i>	0.126	0.998	0.469	glom
ENSG00000138303.13	rs1227095	<i>ASCC1</i>	0.619	0.932	0.258	glom
ENSG00000183826.12	rs12215850	<i>BTBD9</i>	0.52	0.999	0.13	glom
ENSG00000010810.13	rs12190549	<i>FYN</i>	0.087	0.999	0.011	glom
ENSG00000116337.11	rs12130690	<i>AMPD2</i>	0.019	1	0.081	glom
ENSG00000070831.11	rs12093861	<i>CDC42</i>	0.023	0.995	0.566	glom
ENSG00000082438.11	rs12052851	<i>COBL1</i>	0.045	0.93	0.052	glom
ENSG00000187189.9	rs1204833	<i>TSPYL4</i>	0.332	1	0.244	glom
ENSG00000157064.6	rs12035399	<i>NMNAT2</i>	0.835	1	0.806	glom
ENSG00000162643.8	rs12034421	<i>WDR63</i>	0.703	0.999	0.221	glom
ENSG00000142920.12	rs12034407	<i>ADC</i>	0.203	0.973	0.345	glom
ENSG00000203710.6	rs12028134	<i>CR1</i>	0.883	0.998	0.797	glom
ENSG00000151304.5	rs11951243	<i>SRFBP1</i>	0.096	1	0.05	glom
ENSG00000169515.5	rs11880808	<i>CCDC8</i>	0.049	0.998	0.077	glom
ENSG00000133103.12	rs11840965	<i>COG6</i>	0.096	0.937	0.219	glom
ENSG00000070061.10	rs11787869	<i>IKBKAP</i>	0.15	0.998	0.034	glom
ENSG00000171448.8	rs11787783	<i>ZBTB26</i>	0.078	0.979	0.276	glom
ENSG00000061938.12	rs11720557	<i>TNK2</i>	0.854	0.989	0.148	glom

ENSG00000144619.10	rs11713741	<i>CNTN4</i>	0.348	1	0.359	glom
ENSG00000100290.2	rs11704452	<i>BIK</i>	0.844	0.995	0.223	glom
ENSG00000124191.13	rs11699321	<i>TOX2</i>	0.403	0.987	0.331	glom
ENSG00000125637.11	rs11677043	<i>PSD4</i>	0.569	1	0.243	glom
ENSG00000144152.8	rs11675443	<i>FBLN7</i>	0.655	0.997	0.637	glom
ENSG00000141013.10	rs11648422	<i>GAS8</i>	0.778	0.999	0.63	glom
ENSG00000140678.12	rs11640957	<i>ITGAX</i>	0.655	0.998	0.572	glom
ENSG00000140955.6	rs11639837	<i>ADAD2</i>	0.024	0.966	0.032	glom
ENSG00000136159.3	rs11618304	<i>NUDT15</i>	0.276	0.976	0.091	glom
ENSG00000139370.6	rs11609637	<i>SLC15A4</i>	0.002	0.997	0.002	glom
ENSG00000043591.4	rs11595673	<i>ADRB1</i>	0.618	0.994	0.588	glom
ENSG00000143543.10	rs11576296	<i>JTB</i>	0.171	0.988	0.152	glom
ENSG00000133597.5	rs11540284	<i>ADCK2</i>	0.681	1	0.111	glom
ENSG00000203883.5	rs11471754	<i>SOX18</i>	0.805	0.989	0.032	glom
ENSG00000143669.9	rs11451182	<i>LYST</i>	0.005	1	0	glom
ENSG00000134108.8	rs11445899	<i>ARL8B</i>	0.218	0.994	0.182	glom
ENSG00000135926.8	rs11403316	<i>TMBIM1</i>	0.204	0.999	0.6	glom
ENSG00000138778.7	rs11386251	<i>CENPE</i>	0.123	1	0.798	glom
ENSG00000163512.9	rs113737307	<i>AZI2</i>	0.361	0.988	0.342	glom
ENSG00000131791.6	rs11362554	<i>PRKAB2</i>	0.65	0.996	0.809	glom
ENSG00000139354.6	rs113493158	<i>GAS2L3</i>	0.827	0.986	0.529	glom
ENSG00000164300.11	rs1130011	<i>SERINC5</i>	0.565	0.999	0.356	glom
ENSG00000105755.3	rs1125030	<i>ETHE1</i>	0.001	1	0.071	glom
ENSG00000237765.2	rs112409011	<i>FAM200B</i>	0.791	0.989	0.8	glom
ENSG00000137502.5	rs11233440	<i>RAB30</i>	0.047	0.947	0.037	glom
ENSG00000166226.8	rs11177714	<i>CCT2</i>	0.46	0.973	0.597	glom
ENSG00000122557.5	rs1116211	<i>HERPUD2</i>	0.374	0.992	0.392	glom
ENSG00000114738.6	rs11130252	<i>MAPKAPK3</i>	0.882	0.988	0.445	glom
ENSG00000004399.8	rs111211372	<i>PLXND1</i>	0.856	0.999	0.57	glom
ENSG00000197721.12	rs11117991	<i>CR1L</i>	0.018	0.999	0.003	glom
ENSG00000179218.9	rs11085824	<i>CALR</i>	0.805	0.98	0.769	glom
ENSG00000137877.8	rs11070353	<i>SPTBN5</i>	0.87	0.999	0.78	glom
ENSG00000133789.10	rs11042433	<i>SWAP70</i>	0.186	0.987	0.132	glom
ENSG00000064115.6	rs1098528	<i>TM7SF3</i>	0.897	0.989	0.692	glom
ENSG00000135269.13	rs10953810	<i>TES</i>	0.794	1	0.018	glom
ENSG00000143184.4	rs10918925	<i>XCL1</i>	0.286	0.998	0.683	glom
ENSG00000138061.7	rs10916	<i>CYP1B1</i>	0.574	1	0.509	glom

ENSG00000143799.8	rs10915987	<i>PARP1</i>	0.002	1	0.001	glom
ENSG00000189129.9	rs10887528	<i>PLAC9</i>	0.007	1	0.002	glom
ENSG00000203867.7	rs10885019	<i>RBM20</i>	0.767	1	0.01	glom
ENSG00000056972.14	rs10872071	<i>TRAF3IP2</i>	0.44	0.98	0.142	glom
ENSG00000148634.11	rs10823146	<i>HERC4</i>	0.007	0.999	0.305	glom
ENSG00000173611.13	rs10819012	<i>SCAI</i>	0.021	0.996	0.009	glom
ENSG00000131459.8	rs1078646	<i>GFPT2</i>	0.005	0.994	0.005	glom
ENSG00000172602.5	rs10783289	<i>RND1</i>	0.003	0.999	0.003	glom
ENSG00000139350.7	rs10777821	<i>NEDD1</i>	0.347	0.997	0.703	glom
ENSG00000172572.6	rs10770606	<i>PDE3A</i>	0.005	0.998	0.022	glom
ENSG00000119318.8	rs10759227	<i>RAD23B</i>	0.766	1	0.845	glom
ENSG00000163485.11	rs10753933	<i>ADORA1</i>	0.021	0.999	0.027	glom
ENSG00000158747.9	rs10753558	<i>NBL1</i>	0.001	1	0	glom
ENSG00000147408.10	rs10749625	<i>CSGALNACT1</i>	0.261	0.984	0.196	glom
ENSG00000163904.8	rs10651175	<i>SEN2</i>	0.043	0.99	0.186	glom
ENSG00000173218.10	rs10647324	<i>VANGL1</i>	0.882	0.999	0.043	glom
ENSG00000085719.7	rs1062850	<i>CPNE3</i>	0.875	1	0.033	glom
ENSG00000185418.11	rs1052887	<i>TARSL2</i>	0.008	1	0	glom
ENSG00000109436.7	rs10519536	<i>TBC1D9</i>	0.075	0.992	0.023	glom
ENSG00000179915.16	rs10469916	<i>NRXN1</i>	0.023	1	0.032	glom
ENSG00000034152.14	rs10468608	<i>MAP2K3</i>	0.266	0.931	0.207	glom
ENSG00000121743.3	rs10467363	<i>GJA3</i>	0.039	0.987	0.069	glom
ENSG00000162409.6	rs10449752	<i>PRKAA2</i>	0.167	0.957	0.082	glom
ENSG00000168702.12	rs10439174	<i>LRP1B</i>	0.055	0.996	0.187	glom
ENSG00000177025.3	rs10420540	<i>C19orf18</i>	0.038	1	0.888	glom
ENSG00000104805.11	rs10420053	<i>NUCB1</i>	0.005	0.995	0.005	glom
ENSG00000104805.11	rs10416967	<i>NUCB1</i>	0.006	0.994	0.006	glom
ENSG00000083844.6	rs10413541	<i>ZNF264</i>	0.495	0.999	0.153	glom
ENSG00000204524.5	rs10403522	<i>ZNF805</i>	0.014	0.996	0.018	glom
ENSG00000071073.8	rs1028144	<i>MGAT4A</i>	0	1	0	glom
ENSG00000156463.13	rs10223150	<i>SH3RF2</i>	0.028	1	0.3	glom
ENSG00000151694.8	rs10210919	<i>ADAM17</i>	0.146	1	0.047	glom
ENSG00000115392.7	rs10176478	<i>FANCL</i>	0.046	0.99	0.036	glom
ENSG00000139445.13	rs1013746	<i>FOXN4</i>	0.069	1	0.111	glom
ENSG00000100722.14	rs10136653	<i>ZC3H14</i>	0.339	0.983	0.19	glom
ENSG00000099968.13	rs1008378	<i>BCL2L13</i>	0.84	0.999	0.061	glom
ENSG00000170231.11	rs10077980	<i>FABP6</i>	0	1	0	glom

ENSG00000183775.6	rs10061858	<i>KCTD16</i>	0.814	0.981	0.496	glom
ENSG00000165816.8	rs1003441	<i>VWA2</i>	0.331	0.993	0.33	glom
ENSG00000184985.12	rs10010661	<i>SORCS2</i>	0.005	0.993	0.006	glom
ENSG00000151612.11	rs10006310	<i>ZNF827</i>	0.223	0.998	0.603	glom

Supplementary Table 3. The curated list of kidney disease-associated GWAS SNPs. Detailed sample size and statistical test can be found in each published GWAS paper.

Gene Symbols	SNP	Chr	Pos (b37)	Freq	Effect Size	95%CI/SE	P value	Reference	Association parameter
<i>MTX1-GBA</i>	rs2049805	1	153461604	0.17	0.0072	0.001	1.80E-12	Okada 2012 ¹	BUN
<i>PAX8</i>	rs11123170	2	113695411	0.35	0.0051	0.0008	3.30E-10	Okada 2012 ¹	BUN
<i>MECOM</i>	rs16853722	3	170633326	0.29	0.0064	0.0008	2.70E-14	Okada 2012 ¹	BUN
<i>LRIG1-KBTBD8</i>	rs13069000	3	66881640	0.17	0.0093	0.001	1.40E-19	Okada 2012 ¹	BUN
<i>BCL6-LPP</i>	rs10937329	3	189196412	0.69	0.01	0.0009	8.80E-30	Okada 2012 ¹	BUN
<i>RSPO3</i>	rs1936800	6	127477757	0.5	0.0052	0.0008	1.20E-11	Okada 2012 ¹	BUN
<i>UNCX</i>	rs10275044	7	1240371	0.34	0.0069	0.0012	4.30E-09	Okada 2012 ¹	BUN
<i>MPPED2-DCDC5</i>	rs10767873	11	30725254	0.69	0.0068	0.0008	4.50E-16	Okada 2012 ¹	BUN
<i>C12orf51</i>	rs2074356	12	111129784	0.23	0.0064	0.0011	1.80E-09	Okada 2012 ¹	BUN
<i>BCAS3</i>	rs11868441	17	56594003	0.75	0.0059	0.001	2.10E-09	Okada 2012 ¹	BUN
<i>SLC14A2</i>	rs7227483	18	41441128	0.8	0.0083	0.001	6.70E-18	Okada 2012 ¹	BUN
<i>GNAS</i>	rs6026584	20	56902468	0.32	0.0052	0.0009	8.80E-09	Okada 2012 ¹	BUN
<i>SOX11</i>	rs16864170	2	5907880	0.05	-0.011	0.003	4.50E-08	Köttgen 2010 ²	CKD
<i>CPS1</i>	rs7422339	2	211540507	0.32	1.11	1.07-1.15	7.54E-09	Pattaro 2016 ³	CKD
<i>PRKAG2</i>	rs7805747	7	151.407.801	0.24	1.19	1.13-1.25	4.20E-12	Köttgen 2010 ²	CKD
<i>GATM/SPATA5L1</i>	rs2467853	15	45698793	0.62	0.0126	0.0009	1.05E-42	Pattaro 2016 ³	CKD
<i>UMOD</i>	rs12917707	16	20367690	0.18	0.8	0.75-0.85	2.30E-12	Köttgen 2009 ⁴	CKD
<i>CUBN</i>	rs1801239	10	16919052	0.0985	0.0835		1.10E-11	Böger 2011 ⁵	CUBN
<i>SYPL2</i>	rs12136063	1	110014170	0.3	-0.0045	0.0008	4.71E-08	Pattaro 2016 ³	eGFRcrea
<i>SDCCAG8</i>	rs2802729	1	243501763	0.43	-0.0046	0.0008	2.20E-08	Pattaro 2016 ³	eGFRcrea
<i>SARS, CELSR2, PSRC1, MYBPHL, SORT1, PSMA5, SYPL2, ATXN7L2, CYB561D1, AMIGO1, GPR61, GNAI3, AMPD2, GSTM2, GSTM4, GSTM1, GNAT2</i>	rs1933182	1	109999588	0.3	-0.008	0.001	1.30E-08	Köttgen 2010 ²	eGFRcrea

<i>CACNA1S</i>	rs3850625	1	201016296	0.12	0.0083	0.0013	6.82E-11	Pattaro 2016 ³	eGFRcrea
<i>ANXA9/LASS2</i>	rs267734	1	150951477	0.2	0.01	0.002	1.20E-12	Köttgen 2010 ²	eGFRcrea
<i>DNAJC16</i>	rs12124078	1	15869899	0.3	-0.0097	0.0011	1.50E-17	Pattaro 2012 ⁶	eGFRcrea
<i>DDX1</i>	rs6431731	2	15863002	0.06	0.0127	0.0023	4.30E-08	Pattaro 2012 ⁶	eGFRcrea
<i>LRP2</i>	rs4667594	2	170008506	0.47	0.0044	0.0008	3.52E-08	Pattaro 2016 ³	eGFRcrea
<i>IGFBP5</i>	rs2712184	2	217682779	0.42	0.0053	0.0008	1.33E-10	Pattaro 2016 ³	eGFRcrea
<i>ALMS1/NAT8</i>	rs13538	2	73868328	0.23	0.009	0.002	4.50E-14	Köttgen 2010 ²	eGFRcrea
<i>GCKR</i>	rs1260326	2	27730940	0.41	0.009	0.001	3.00E-14	Köttgen 2010 ²	eGFRcrea
<i>WNT7A</i>	rs6795744	3	13906850	0.15	0.006	0.0011	3.33E-08	Pattaro 2016 ³	eGFRcrea
<i>SKIL</i>	rs9682041	3	170091902	0.13	0.0068	0.0012	2.58E-08	Pattaro 2016 ³	eGFRcrea
<i>ETV5</i>	rs10513801	3	185822353	0.13	-0.0072	0.0012	1.03E-09	Pattaro 2016 ³	eGFRcrea
<i>TFDP2</i>	rs347685	3	141807137	0.28	0.009	0.001	3.00E-11	Köttgen 2010 ²	eGFRcrea
<i>FAM47E, STBD1, CCDC158, SHROOM3</i>	rs13146355	4	77412140	0.21	-0.0117	0.0013	6.60E-11	Okada 2012 ¹	eGFRcrea
<i>NFKB1</i>	rs228611	4	103561709	0.47	-0.0056	0.0008	3.58E-12	Pattaro 2016 ³	eGFRcrea
<i>SHROOM3</i>	rs17319721	4	77368847	0.44	-0.012	0.002	1.20E-12	Köttgen 2009 ⁴	eGFRcrea
<i>RGS14</i>	rs12654812	5	176726797	0.36	-0.0056	0.001	2.90E-08	Okada 2012 ¹	eGFRcrea
<i>DAB2</i>	rs11959928	5	39397132	0.44	-0.009	0.001	1.40E-17	Köttgen 2010 ²	eGFRcrea
<i>ZNF204</i>	rs7759001	6	27341409	0.24	0.0051	0.0009	1.75E-08	Pattaro 2016 ³	eGFRcrea
<i>MHC region</i>	rs3828890	6	31440669	0.11	-0.0079	0.0013	1.20E-09	Okada 2012 ¹	eGFRcrea
<i>SLC22A2</i>	rs2279463	6	160668389	0.12	-0.013	0.002	5.50E-12	Köttgen 2010 ²	eGFRcrea
<i>VEGFA</i>	rs881858	6	43806609	0.28	0.011	0.002	9.40E-14	Köttgen 2010 ²	eGFRcrea
<i>KBTBD2</i>	rs3750082	7	32919927	0.33	0.0045	0.0008	3.22E-08	Pattaro 2016 ³	eGFRcrea
<i>TMEM60</i>	rs6465825	7	77416439	0.39	-0.008	0.001	1.50E-09	Köttgen 2010 ²	eGFRcrea
<i>RNF32</i>	rs6459680	7	156,258,568	0.26	0.0055	0.0009	1.07E-09	Pattaro 2016 ³	eGFRcrea
<i>UNCX</i>	rs10277115	7	1285195	0.35	-0.0058	0.0009	1.00E-10	Okada 2012 ¹	eGFRcrea
<i>STC1</i>	rs10109414	8	23751151	0.42	-0.008	0.001	1.00E-08	Köttgen 2010 ²	eGFRcrea
<i>PIP5K1B</i>	rs4744712	9	71434707	0.39	-0.008	0.001	8.30E-14	Köttgen 2010 ²	eGFRcrea
<i>WDR37</i>	rs10794720	10	1156165	0.08	-0.014	0.002	1.20E-08	Köttgen 2010 ²	eGFRcrea
<i>A1CF</i>	rs10994860	10	52645424	0.19	0.0077	0.0011	1.07E-12	Pattaro 2016 ³	eGFRcrea
<i>KCNQ1</i>	rs163160	11	2789955	0.18	-0.0065	0.0011	2.26E-09	Pattaro 2016 ³	eGFRcrea
<i>AP5B1</i>	rs4014195	11	65506822	0.36	-0.0055	0.0008	1.10E-11	Pattaro 2016 ³	eGFRcrea
<i>MPPED2</i>	rs3925584	11	30760335	0.46	0.0075	0.0009	8.40E-18	Pattaro 2012 ⁶	eGFRcrea

<i>INHBC</i>	rs1106766	12	57809456	0.22	0.0061	0.001	2.41E-09	Pattaro 2016 ³	eGFRcrea
<i>SLC6A13</i>	rs10774021	12	349298	0.36	0.008	0.001	1.40E-09	Köttgen 2010 ²	eGFRcrea
<i>PTPRO</i>	rs7956634	12	15321194	0.19	0.0068	0.001	7.17E-12	Pattaro 2016 ³	eGFRcrea
<i>TSPAN9</i>	rs10491967	12	3368093	0.1	-0.0095	0.0013	5.18E-14	Pattaro 2016 ³	eGFRcrea
<i>DACH1</i>	rs626277	13	72347696	0.4	0.009	0.001	2.50E-11	Köttgen 2010 ²	eGFRcrea
<i>INO80</i>	rs2928148	15	41401550	0.48	-0.0051	0.0009	4.00E-08	Pattaro 2012 ⁶	eGFRcrea
<i>WDR72</i>	rs491567	15	53946593	0.22	0.009	0.002	2.70E-13	Köttgen 2010 ²	eGFRcrea
<i>UBE2Q2</i>	rs1394125	15	76158983	0.35	-0.009	0.001	3.30E-17	Köttgen 2010 ²	eGFRcrea
<i>DPEP1</i>	rs164748	16	89708292	0.47	-0.0046	0.0008	1.95E-08	Pattaro 2016 ³	eGFRcrea
<i>PDILT</i>	rs11864909	16	20400839	0.81	-0.0062	0.0011	3.60E-10	Okada 2012 ¹	eGFRcrea
<i>SLC47A1</i>	rs2453580	17	19438321	0.41	-0.0059	0.001	2.10E-09	Pattaro 2012 ⁶	eGFRcrea
<i>CDK12</i>	rs11078903	17	37631924	0.24	0.0096	0.0013	9.00E-13	Pattaro 2012 ⁶	eGFRcrea
<i>BCAS3</i>	rs9895661	17	59456589	0.19	-0.011	0.002	1.10E-15	Köttgen 2010 ²	eGFRcrea
<i>NFATC1</i>	rs8091180	18	77164243	0.44	0.006	0.001	1.28E-09	Pattaro 2016 ³	eGFRcrea
<i>SIPA1L3</i>	rs11666497	19	38464262	0.18	-0.0058	0.0011	4.25E-08	Pattaro 2016 ³	eGFRcrea
<i>SLC7A9</i>	rs12460876	19	33356891	0.39	0.008	0.001	3.20E-15	Köttgen 2010 ²	eGFRcrea
<i>MKKS, SLX4IP, JAG1</i>	rs6040055	20	10633313	0.39	-0.017	0	1.00E-08	Köttgen 2009 ⁴	eGFRcrea
<i>TP53INP2</i>	rs6088580	20	33285053	0.47	-0.0049	0.0008	1.79E-09	Pattaro 2016 ³	eGFRcrea
<i>BCAS1</i>	rs17216707	20	52732362	0.21	0.0077	0.001	8.83E-15	Pattaro 2016 ³	eGFRcrea
<i>CUX2, FAM109A, SH2B3, ATXN2, BRAP, ACAD10, ALDH2</i>	rs653178	12	112007756	0.5	0.003	0.001	3.50E-11	Köttgen 2010 ²	eGFRcys
<i>NAPB, CSTL1, CST11, CST8, CST9L, CST9, CST3, CST4, CST1, CST2, CST5</i>	rs13038305	20	23610262	0.21	0.076	0.004	2.20E-88	Köttgen 2009 ⁴	eGFRcys
<i>APOL1</i>	rs4821475	22	36669095	0.79	NA	NA	3.51E-08	Genovese 2010 ⁷	FSGS
<i>MYH9</i>	rs2157256	22	36311616	0.91	NA	NA	1.36E-09	Genovese 2010 ⁷	FSGS
<i>APOL2</i>	rs4821469	22	36220399	0.8	NA	NA	9.31E-10	Genovese 2010 ⁷	FSGS
<i>MYH9</i>	rs16996672	22	36329925	0.56	NA	NA	2.56E-10	Genovese 2010 ⁷	FSGS
<i>APOL1</i>	rs2239785	22	36265284	0.94	NA	NA	4.59E-13	Genovese 2010 ⁷	FSGS
<i>AFF3, TSC22D4, NYAP1</i>	rs7583877	2	100460654	0.289	1.29	1.18-1.40	1.20E-08	Sandholm 2012 ⁸	T1-ESRD
no gene in <250 kb distance	rs12437854	15	94141833	0.038	1.8	1.48-2.17	2.00E-09	Sandholm 2012 ⁸	T1-ESRD
<i>CDCA7</i>	rs4972593	2	174462854	0.14	1.81	1.47-2.24	3.85E-08	Sandholm 2013 ⁹	T1DK-FemaleOnly

<i>RND3</i>	rs7560163	2	151637936	0.14	0.75	0.68–0.87	7.00E-09	Palmer 2012 ¹⁰	T2-ESRD
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Supplementary Table 4. Primers used by Quantitative Real-Time PCR.

Gene	Forward	Reverse
<i>Fn1</i>	ACAAGGTTCTGGGAAGAGGTT	CCGTGTAAGGGTCAAAGCAT
<i>Tgfb1</i>	TGGAGCCTGGACACACAGTA	TGTGTTGGTTGTAGAGGGCA
<i>Col1a1</i>	TGCCTGGACCTCCTGGCGAGCGT	AGCAGGTCCGGGAGCACCACGTT
<i>Col3a1</i>	ACAGCTGGTGAACCTGGAAG	ACCAGGAGATCCATCTCGAC
<i>Ubiquitin C</i>	GCCCAGTGTTACCACCAAGAAG	GCTCTTTTGTAGATACTGTGGTGAGGAA

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