KidneySeq™ Disorders of Tubular Ion Transport		
Cost: $2000 | CPT Code: 81455		
Disease	Inheritance Pattern	Gene(s)
Adrenal hyperplasia, congenital (11b-OH deficiency)	AR	*CYP11B1*
17α-hydroxylase/17,20-lyase deficiency*	AR	*CYP17A1**
Adrenal hyperplasia, congenital, due to 21-hydroxylase deficiency*	AR	*CYP21AP, CYP21A2**
Apparent mineralocorticoid excess	AR	*HSD11B2*
APRT deficiency (stones and ESRD)	AR	*APRT*
Bartter syndrome	AD	*CASR*
	AR	*BSND, CLCNKA, CLCNKB, KCNJ1, MAGED2, SLC12A1*
Cystinosis	AR	*CTNS*
Cystinuria	AD, AR	*SLC3A1, SLC34A1, SLC7A9*
Dent disease	XLR	*CLCN5, OCRL*
Familial hypocalciuric hypercalcemia	AD	*CaSR*
Fanconi-Bickel syndrome	AR	*SLC2A2*
Fanconi syndrome, generalized proximal defect	AD	*EHHADH, HNF4A*
	AR	*ATP7B, CTNS, FAH, GATM, SLC34A1*
	XLR	*CLCN5*
Gitelman syndrome	AR	*CLCNKB, SLC12A3*
Glucosuria, renal	AD, AR	*SLC5A1, SLC5A2*
Hypoaldosteronism, congenital	AR	*CYP11B2*
Hypomagnesemia, renal	AD	*CNNM2, FXYD2*
	AR	*CLDN16, CLDN19, EGF, HNF1B, KCNJ10, TRPM6*
Hyperaldosteronism, familial	AD	*CACNA1D, CACNA1H, CLCN2, CYP11B1, KCNJ5*
Hyperaldosteronism, glucocorticoid remediable	AD	*CYP11B1-CYP11B2 fusion*
Hyperuricemia, pulmonary hypertension, renal failure, and alkalosis syndrome (HUPRAS)	AR	*SARS2*
Hypercalciuria	AD	*ADCY10*
Hyperoxaluria, primary	AR	*AGXT, GRHPR, HOGA1*
Hypertension with hyperkalemia (Gordon's syndrome), Pseudohypoaldosteronism II	AD	*CUL3, KLHL3, WNK1, WNK4*
	AR	*KLHL3*
Hypocalcemia, autosomal dominant	AD	*CASR*
Hypokalemic- salt-losing nephropathy	AR	*CLDN10, KCNJ10*
Hypophosphatasia, adult*	AD, AR	*ALPL**
Hypophosphatasia, child*	AR	*ALPL**
Hypophosphatasia, infantile*	AR	*ALPL**
Hypophosphatemic rickets	AD	*FGF23, SGK3**
	AR	*DMP1, CYP27B1, ENPP1, SLC34A3, VDR*
	XLR	*CLCN5*
	XLD	*PHEX*
Hypouricemia, renal	AD	*SLC2A9*
	AR	*SLC22A12*
Liddle syndrome (AD) (pseudoprimary hyperaldosteronism)	AD	*SCNN1B, SCNN1G*
Nephrogenic diabetes insipidus	AD, AR	*AQP2*
	XLR	*AVPR2*
Nephrogenic syndrome of inappropriate antidiuresis	XLR	*AVPR2*
Nephrolithiasis/osteoporosis, hypophosphatemic	AD	*SLC9A3R1*
Pseudohypoaldosteronism I	AD	*NR3C2*
	AR	*SCNN1A, SCNN1B, SCNN1G*
Renal tubular acidosis, distal	AD, AR	*ATP6V0A4, ATP6V1B1, ATP6V1C2*, FOXI1, SLC4A1, WDR72**
Renal tubular acidosis, proximal	AD	*EHHADH, HNF4A*
	AR	*ATP7B, CTNS, FAH, SLC34A1, SLC4A4*
	XLR	*ATP7B, CLCN5*

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Renal tubular acidosis, type IV	AD	*CUL3, KLHL3, NR3C2, WNK1, WNK4*
	AR	*SCNN1A, SCNN1B, SCNN1G*
Renal tubular acidosis, with osteopetrosis	AR	*CA2*
Renal tubular disease, hypertension related		*NEDD4L*
SESAME syndrome / East syndrome	AR	*KCNJ10*

*New to KidneySeq™