TS28 urinary and reproductive systems (P4 - Adult)

```
EMAP: 27551
                 mouse
EMAP:27553
                 L organ system
                   L visceral organ
EMAP: 27555
EMAP: 27559
                        urinary system
                          mesentery
EMAP: 29477
EMAP:29617
                             rest of mesentery
                             urogenital mesentery
EMAP: 29478
                           metanephros (syn: kidney)
EMAP:29491
                             renal capsule
EMAP: 29598
EMAP:29561
                             nephrogenic zone
EMAP: 29564
                                nephrogenic interstitium (syn: peripheral blastema)
EMAP:29562
                                cap mesenchyme (syn: condensed mesenchyme)
EMAP:29565
                                pretubular aggregate (syn: pretubular condensate)
                                ureteric tip (syn: ureteric ampulla)
EMAP: 29563
EMAP:31053
                                ureteric tree terminal branch excluding tip itself
EMAP: 29492
                             renal cortex
EMAP:29525
                                mature renal corpuscle (syn: Malpighian corpuscle)
EMAP: 29529
                                  glomerular tuft (syn: glomerulus)
EMAP:29533
                                     glomerular capillary system
EMAP: 29530
                                     glomerular mesangium
                                     glomerular basement membrane
EMAP: 29532
                                     visceral epithelium of mature renal corpuscle (syn: podocyte layer)
EMAP: 29531
EMAP: 29526
                                   Bowman's capsule (syn: glomerular capsule)
EMAP: 29528
                                     parietal epithelium
EMAP:29527
                                     urinary space of renal corpuscle (syn: Bowman's space)
EMAP: 29536
                                  afferent arteriole
EMAP:29537
                                     part of afferent arteriole forming the juxtaglomerular complex (syn: renin-producing cell)
EMAP: 29538
                                     rest of afferent arteriole
EMAP:29535
                                  efferent arteriole
EMAP:29534
                                  extraglomerular mesangium
                                cortical renal tubule
EMAP: 29499
EMAP:29500
                                  renal proximal tubule
EMAP: 29502
                                     renal proximal convoluted tubule (syn: first convoluted tubule)
EMAP:29658
                                        segment 1 of proximal tubule
                                        segment 2 of proximal tubule
EMAP: 29660
EMAP:29662
                                   L renal proximal straight tubule (syn: pars recta; segment 3 of proximal tubule)
                                  renal distal tubule
EMAP: 29503
                                     distal convoluted tubule (syn: second convoluted tubule)
EMAP: 29508
EMAP: 29505
                                     distal straight tubule (syn: thick ascending limb)
                                        premacula segment of distal straight tubule
EMAP:31383
EMAP: 29507
                                        macula densa
                                        postmacula segment of distal straight tubule
EMAP: 29506
                                  renal connecting tubule
EMAP: 29509
EMAP:29520
                                cortical collecting duct
EMAP: 29521
                                renal cortical interstitium (syn: cortical stroma)
EMAP:31295
                                  renal cortical fibroblasts
EMAP: 31427
                                     periarterial fibroblasts of cortex
                                     peritubular fibroblasts of cortex
EMAP: 31425
EMAP:31303
                                  resident macrophages of the cortex (syn: renal monocytes of the cortex)
EMAP:31311
                                  rest of renal cortical interstitium
EMAP:29549
                                renal cortical vasculature
                                  renal cortical arterial system
EMAP: 29550
EMAP:29552
                                     interlobular artery
EMAP: 29551
                                     arcuate artery
                                  renal cortical venous system
EMAP: 29553
                                   | interlobular vein
EMAP: 29554
EMAP:29555
                                     arcuate vein
                                  renal cortical capillary
EMAP: 30042
EMAP:31318
                                renal cortical lymphatics
                                renal cortical nerves
EMAP: 31325
                             renal medulla
EMAP: 29566
                                outer medulla
EMAP: 29567
EMAP:31490
                                  loop of Henle, outer medullary portion
EMAP:31492
                                     thin descending limb
EMAP:31493
                                     thin ascending limb (syn: ascending thin limb)
EMAP: 31491
                                     proximal straight tubule (syn: pars recta; segment 3 of proximal tubule)
                                     premacula segment of distal straight tubule (syn: thick ascending limb)
EMAP: 31494
EMAP:29982
                                   outer medullary interstitium
EMAP: 31388
                                     outer medullary fibroblast
EMAP:31431
                                        periarterial fibroblasts of outer medulla
```

EMAP:31429	
EMAP:31393	resident macrophage of the outer medulla (syn: renal monocytes of the outer medulla)
EMAP:31398	rest of outer medullary interstitium
	!!!!!
EMAP:29664	
EMAP:29666	L loop of Henle
EMAP:29670	proximal straight tubule (syn: pars recta; segment 3 of proximal tubule)
EMAP:29672	distal straight tubule (syn: thick ascending limb)
EMAP:29678	inner stripe of outer medulla
	L loop of Henle
EMAP: 29680	! ! ! ! ! . '
EMAP:29682	hthin descending limb
EMAP:29684	premacula segment of distal straight tubule (syn: thick ascending limb)
EMAP:29983	
EMAP:29581	
EMAP:29583	loop of Henle, inner medullary portion
EMAP:29584	thin descending limb
EMAP:29586	
EMAP:29585	thin ascending limb (syn: ascending thin limb)
EMAP:29582	
EMAP:31403	
EMAP:31435	
EMAP:31433	i i i i i peritubular fibroblasts of inner medulla
EMAP:31408	resident macrophage of the inner medulla (syn: renal monocytes of the inner medulla)
	L rest of inner medullary interstitium
EMAP: 32570	
EMAP:29587	inner medullary collecting duct (syn: papillary collecting duct)
EMAP:29589	- renal medullary vasculature
EMAP:29590	
EMAP:29591	Frenal medullary venous system
EMAP:30048	i i i i renal medullary capillary (syn: vasa recta)
EMAP:31353	- renal medullary lymphatics
EMAP:31360	L renal medullary nerves
EMAP:29595	
EMAP:29597	major
EMAP:29596	L minor
EMAP:29557	
EMAP:29559	pelvic urothelial lining (syn: pelvic urothelium)
EMAP:29560	- pelvic smooth muscle
EMAP:29558	L perihilar interstitium
	perihilar fibroblast
EMAP:31366	
EMAP:31372	resident macrophage of the perihilar interstitium (syn: renal monocytes of the perihilar
interstitium)	
EMAP:31378	L rest of perihilar interstitium
EMAP:29442	- renal artery
EMAP:29981	endothelial layer of renal artery
EMAP:30002	endothelium of renal artery
EMAP:30010	smooth muscle layer of renal artery
EMAP:29441	- renal vein
	- endothelial layer of renal vein
EMAP:29969	1 1 1
EMAP:30018	endothelium of renal vein
EMAP:30026	
EMAP:29692	- renal nerve
EMAP:29479	i - ureter
EMAP:29482	urothelium of ureter (syn: transitional epithelium)
EMAP:29483	superficial cell layer of ureter (syn: umbrella cell)
EMAP:29485	- intermediate cell layer of ureter
	!!!!
EMAP: 29486	i i i amon an maran
EMAP:29481	- lamina propria
EMAP:29488	ureteral smooth muscle layer
EMAP:29634	
EMAP:29636	- outer circular muscle
EMAP:29489	i i i i i i interstitium (syn: Cajal cell)
EMAP:29480	- adventitia of ureter
	L ureteral vasculature
EMAP:30859	! !
EMAP:29638	- median umbilical ligament
EMAP:29457	bladder
EMAP:29462	
EMAI.25402	i i and an
EMAP:32381	superficial cell layer of bladder
	- superficial cell layer of bladder
EMAP:32381 EMAP:32388	
EMAP:32381 EMAP:32388 EMAP:29463	
EMAP:32381 EMAP:32388 EMAP:29463 EMAP:29464	
EMAP:32381 EMAP:32388 EMAP:29463 EMAP:29464 EMAP:30087	
EMAP:32381 EMAP:32388 EMAP:29463 EMAP:29464	

EMAP:30115	lamina propria of trigone
EMAP:30122	│
EMAP:29459	h muscularis mucosa of bladder
EMAP:29460	- muscularis mucosa of fundus
EMAP:29461	- muscularis mucosa of trigone
EMAP:30143	L muscularis mucosa of neck
EMAP:32395	- submucosa of bladder
EMAP:32409	submucosa of fundus
EMAP: 32508	- submucosa of trigone
EMAP: 32402	L detrocar reveals of header
EMAP:29468	detrusor muscle of bladder
EMAP:29470	detrusor muscle of fundus
EMAP:29469	- detrusor muscle of trigone
EMAP:30129	
EMAP:29471	- serosa of bladder
EMAP:29473	
EMAP:29472	
EMAP:30136	L serosa of neck
EMAP:29465	- adventitia of bladder
EMAP:29467	- adventitia of fundus
EMAP:29466	
EMAP:30149	L adventitia of neck
EMAP: 29474	- vasculature of bladder (syn: blood vessel of bladder)
EMAP:31660	Language of bladder
	- Herve of Bladder
EMAP: 29600	Furethra of female
EMAP: 29443	
EMAP: 30961	
EMAP: 30963	urothelium of pelvic urethra of female
EMAP:32351	urothelium of dorsal pelvic urethra of female
EMAP:32358	Superficial cell layer of dorsal pelvic urethra of female
EMAP:32520	intermediate cell layer of dorsal pelvic urethra of female
EMAP:32364	basal cell layer of dorsal pelvic urethra of female
EMAP:32425	L urothelium of ventral pelvic urethra of female
EMAP:32461	
EMAP:32514	
EMAP:32467	
EMAP:30964	- mesenchymal layer of pelvic urethra of female
EMAP:32581	- mesenchymal layer of dorsal pelvic urethra of female
EMAP:32483	
dorsal pelvic urethra of	female; sub-epithelial mesenchymal layer of dorsal pelvic urethra of female)
EMAP:32479	muscularis mucosa of dorsal pelvic urethra of female
EMAP:32550	submucosa of dorsal pelvic urethra of female
EMAP:32578	mesenchymal layer of ventral pelvic urethra of female
EMAP: 32538	
	Female; sub-epithelial mesenchymal layer of ventral pelvic urethra of female)
EMAP: 32534	muscularis mucosa of ventral pelvic urethra of female
EMAP:32530	L submucosa of ventral pelvic urethra of female
EMAP:30962	- muscle layer of pelvic urethra of female
	vasculature of pelvic urethra of female
EMAP: 32429	L nerve of pelvic urethra of female
EMAP:31800	phallic urethra of female (syn: external urethra of female)
EMAP: 30923	
EMAP:30958	!!!!
EMAP: 30959	- mesenchymal layer of phallic urethra of female
EMAP:30960	- muscle layer of phallic urethra of female
EMAP: 31741	L nerve of phallic urethra of female
EMAP: 29654	L female urethral gland
EMAP:29448	urethra of male
EMAP:29449	- pelvic urethra of male
EMAP:29450	urothelium of pelvic urethra of male
EMAP:32498	urothelium of dorsal pelvic urethra of male
EMAP:32345	superficial cell layer of dorsal pelvic urethra of male
EMAP:32526	intermediate cell layer of dorsal pelvic urethra of male
EMAP:32329	L basal cell layer of dorsal pelvic urethra of male
EMAP:32320	urothelium of ventral pelvic urethra of male
EMAP:32435	superficial cell layer of ventral pelvic urethra of male
EMAP:32556	intermediate cell layer of ventral pelvic urethra of male
EMAP:32335	basal cell layer of ventral pelvic urethra of male
EMAP:29451	- mesenchymal layer of pelvic urethra of male
EMAP:32575	mesenchymal layer of dorsal pelvic urethra of male
EMAP:32542	
	sub-epithelial mesenchymal layer of dorsal pelvic urethra of male)
EMAP: 32546	muscularis mucosa of dorsal pelvic urethra of male
	1 1 1 1

EMAP:32471	L submucosa of dorsal pelvic urethra of male
EMAP:32584	L mesenchymal layer of ventral pelvic urethra of male
EMAP:32475	
ventral pelvic urethra o	f male; sub-epithelial mesenchymal layer of ventral pelvic urethra of male)
EMAP:32487	- muscularis mucosa of ventral pelvic urethra of male
EMAP:32491	L submucosa of ventral pelvic urethra of male
EMAP: 29452	
EMAP:32339 EMAP:31790	L nerve of pelvic urethra of male
EMAP:30943	prostatic urethra
EMAP:30953	urothelium of prostatic urethra
EMAP:32365	
EMAP:32492	intermediate cell layer of prostatic urethra
EMAP:32371	basal cell layer of prostatic urethra
EMAP: 30955	- mesenchymal layer of prostatic urethra
EMAP:32501 EMAP:32500	
EMAP: 32499	L submucosa of prostatic urethra
EMAP:30957	- muscle layer of prostatic urethra
EMAP:32410	smooth muscle layer of prostatic urethra
EMAP:32366	L striated muscle layer of prostatic urethra
EMAP:32352	vasculature of prostatic urethra
EMAP: 32411	
EMAP:30945 EMAP:30947	
EMAP:30947	- mesenchymal layer of penile urethra
EMAP:30951	L muscle layer of penile urethra
EMAP:29640	- bulbar part of urethra of male
EMAP:29642	distal region of urethra of male
EMAP:29646	L male urethral gland
EMAP: 29475	- urorectal septum L pelvic ganglion
EMAP:31649 EMAP:29601	reproductive system
EMAP:29348	male reproductive system
EMAP:29352	- testis
EMAP:29358	rete testis
EMAP:29359	interstitium of the testis (syn: interstitial tissue)
EMAP: 29656	Leydig cell
EMAP:29361 EMAP:29364	
EMAP:31477	Seminiferous tubule
EMAP:31479	Sertoli cell
EMAP:31483	spermatogonium
EMAP:31485	spermatocyte
EMAP: 31487	
EMAP:31489 EMAP:31481	
EMAP:29362	mediastinum testis
EMAP:29363	- tunica albuginea of testis
EMAP:31244	surface epithelium of testis
EMAP:29604	vasculature of testis
EMAP:29606	- coelomic vessel
EMAP:29608 EMAP:29732	
EMAP:31259	cremaster muscle
EMAP:29386	- cystic vesicular appendage
EMAP:29374	inguinal canal
EMAP:29392	inguinal ring
EMAP:29393	external inguinal ring
EMAP: 29394	Land indicated in the company of t
EMAP:29349 EMAP:29772	- seminal vesicle (syn: vesicular seminalis) - epithelial layer of seminal vesicle
EMAP:29774	muscle layer of seminal vesicle
EMAP:29776	- adventitia of seminal vesicle
EMAP:30798	L vasculature of seminal vesicle
EMAP:29385	efferent duct of seminal vesicle (syn: vasa efferentia)
EMAP:29748	epithelial layer of efferent duct
EMAP:29750	L rest of efferent duct
EMAP:29370 EMAP:29373	
EMAP:29373 EMAP:29762	- caput epididymis - epithelium of caput of epididymis
EMAP:29764	- muscle layer of caput of epididymis

EMAP:29766	L adventitia of caput of epididymis
EMAP:29371	- cauda epididymis
EMAP:29694	epithelium of cauda of epididymis
EMAP: 29752	- muscle layer of cauda of epididymis
EMAP: 29754	Ladventitia of cauda of epididymis
EMAP: 29372	
EMAP:29756 EMAP:29758	- muscle layer of corpus of epididymis
EMAP:29760	L adventitia of corpus of epididymis
EMAP:30796	L vasculature of epididymis
EMAP:29377	- ductus deferens (syn: vas deferens)
EMAP:29378	- epithelium of ductus deferens
EMAP:29379	- muscle layer of ductus deferens
EMAP:30056	circular muscle layer of ductus deferens
EMAP:30058	l longitudinal muscle layer of ductus deferens
EMAP:29768	- adventitia of ductus deferens
EMAP:30794	L vasculature of ductus deferens
EMAP:29391	- appendix epididymis
EMAP: 29395	- appendix testis - ejaculatory duct
EMAP:29387 EMAP:29787	- epithelial layer of ejaculatory duct
EMAP:32450	- muscle layer of ejaculatory duct
EMAP:30800	L vasculature of ejaculatory duct
EMAP:29779	- male accessory gland
EMAP:29782	- bulbourethral gland (syn: Cowper's gland)
EMAP:29791	- epithelial component of bulbourethral gland
EMAP:29793	interstitium of bulbourethral gland
EMAP:30804	vasculature of bulbourethral gland
EMAP:29785	prostate gland
EMAP:32455	epithelial layer of prostate gland
EMAP:32419	peri-prostatic mesenchyme of prostate gland
EMAP:29795	anterior prostate gland (syn: coagulating gland)
EMAP:29797	
EMAP:29799	glandular epithelium of anterior prostate (syn: luminal epithelium; secretory epithelium)
EMAP:29801	basal epithelium of anterior prostate
EMAP:29803	anterior prostatic interstitium
EMAP:29805	smooth muscle of anterior prostate
EMAP:29807	rest of interstitium of anterior prostate
EMAP: 29809	- dorsal prostate gland
EMAP:29811 EMAP:29813	
EMAP:29815	L basal epithelium of dorsal prostate
EMAP:29817	dorsal prostatic interstitium
EMAP:29819	smooth muscle of dorsal prostate
EMAP:29821	rest of interstitium of dorsal prostate
EMAP:29823	- lateral prostate gland
EMAP:29825	lateral prostatic epithelium
EMAP:29827	glandular epithelium of lateral prostate (syn: luminal epithelium; secretory epithelium)
EMAP:29829	basal epithelium of lateral prostate
EMAP:29831	lateral prostatic interstitium
EMAP:29833	smooth muscle of lateral prostate
EMAP:29835	rest of interstitium of lateral prostate
EMAP:29837	- ventral prostate gland
EMAP: 29839	- ventral prostatic epithelium
EMAP: 29841	glandular epithelium of ventral prostate (syn: luminal epithelium; secretory epithelium)
EMAP: 29843	L basal epithelium of ventral prostate
EMAP:29845 EMAP:29847	smooth muscle of ventral prostate
EMAP: 29849	rest of interstitium of ventral prostate
EMAP:30806	- vasculature of prostate gland
EMAP:32436	nerve of prostate gland
EMAP:29369	- gubernaculum (syn: caudal suspensory ligament)
EMAP:30063	mesorchium
EMAP:29380	- penis (syn: genital tubercle of male)
EMAP:29383	- glans penis
EMAP:29859	- epithelial layer of glans penis
EMAP:29857	corpus spongiosum
EMAP:29861	rest of glans penis
EMAP:29381	- crus penis
EMAP:29770	os penis
EMAP:29851	corpus spongiosum
EMAP:29853	epithelial layer of crus penis

EMAP:29855	L rest of crus penis
EMAP:29382	prepuce of male
EMAP:30808	vasculature of penis
EMAP:29384	L scrotum
EMAP:29734	- epidermal layer of scrotum
EMAP:29736	basal layer
EMAP:29738	stratified layer
	- dermal layer of scrotum
EMAP: 29740	
EMAP: 29742	- hair follicle
EMAP:29744	L sweat gland
EMAP:29746	septum of scrotum
EMAP:30792	L vasculature of scrotum
EMAP:29396	female reproductive system
EMAP:29419	- ovary
EMAP:30527	surface epithelium of ovary (syn: coelomic epithelium)
EMAP:30526	tunica albuginea of ovary (syn: ovarian capsule)
EMAP:29423	- mesenchymal stroma of ovary
EMAP:29424	- cortical component of mesenchymal stroma
EMAP:29425	L medullary component of mesenchymal stroma
EMAP:31034	- meiotic oocytes
EMAP:30756	- primordial follicle
EMAP:30758	oocyte of primordial follicle
EMAP: 31249	follicle cell of primordial follicle (syn: granulosa cell)
EMAP:29427	- primary follicle
EMAP:29429	primary oocyte of primary follicle
EMAP:29428	follicle cell of primary follicle (syn: granulosa cell of primary follicle)
EMAP:29863	secondary follicle (syn: antral follicle)
EMAP:29865	- oocyte of secondary follicle
EMAP:29867	
EMAP:29869	cumulus of secondary follicle
EMAP:29871	L mural of secondary follicle
	theca of secondary follicle
EMAP: 29873	
EMAP: 30764	tertiary follicle (syn: antral follicle)
EMAP: 30766	- oocyte of tertiary follicle
EMAP:30768	follicle cell of tertiary follicle (syn: granulosa cell of tertiary follicle)
EMAP:30774	- cumulus of tertiary follicle
EMAP:30776	L mural of tertiary follicle
EMAP:30772	antrum of tertiary follicle
EMAP:30770	L theca of tertiary follicle
EMAP:30778	Graafian follicle (syn: pre-ovulatory follicle)
EMAP:30780	primary oocyte of mature follicle
EMAP:30782	erminal cell of mature follicle (syn: granulosa)
EMAP:30784	
EMAP:30786	
EMAP:30790	
EMAP:30788	L theca of mature follicle
EMAP:29881	ruptured follicle (syn: ovulated follicle)
EMAP:29885	
EMAP:31263	- granulosa of ruptured follicle
EMAP:29883	theca of ruptured follicle
EMAP:29887	corpus luteum
EMAP:29875	- atretic follicle
EMAP:29877	- oocyte of atretic follicle
EMAP:29879	- apoptotic germinal cell (syn: apoptotic granulosa)
EMAP:31261	theca of atretic follicle
EMAP:29896	- corpus albicans
EMAP:29422	- rete ovarii of ovary
EMAP:29632	vasculature of the ovary
EMAP:29400	- mesovarium
EMAP:29404	- cystic vesicular appendage
EMAP:29418	- suspensory ligament of ovary
EMAP:29399	- Mullerian tubercle
EMAP: 29430	- Numerian tubercie - oviduct
EMAP:29430 EMAP:29898	- infundibulum
	- epithelial layer of infundibulum
EMAP: 29900	- epithelial layer of infundibulum
EMAP: 31265	circular muscle layer of infundibulum
EMAP: 31269	
EMAP: 31267	Longitudinal muscle layer of infundibulum
EMAP:29904	Leserosa of infundibulum
EMAP:30810	- vasculature of oviduct
EMAP:29906	Legitle Visit and a second sec
EMAP:29908	- epithelial layer of rest of oviduct

EMAP:30050	- muscle layer of rest of oviduct
EMAP:30054	longitudinal muscle layer of rest of oviduct
EMAP:30052	L circular muscle layer of rest of oviduct
EMAP:29914	L serosa of rest of oviduct
EMAP:29916	- uterus
EMAP:29918	- endometrium
EMAP:29920	uterine gland
EMAP:29922	
EMAP:29924	- myometrium
EMAP:29926	- adventitia
EMAP:29928	- cervix uteri
EMAP:29930	epithelial layer of cervix uteri
EMAP:29932	muscle layer of cervix uteri
EMAP:29934	
EMAP:30812	L vasculature of uterus
EMAP:29408	- vagina
EMAP:29409	- lower part of vagina (syn: sinus vagina)
EMAP:29410	epithelial layer of lower part of vagina
EMAP:29936	- gland of lower vaginal epithelium
EMAP:29938	rest of epithelial layer of lower vagina
EMAP:29411	muscular layer of lower part of vagina
EMAP:29940	
EMAP:29412	- upper part of vagina
EMAP:29413	epithelial layer of upper part of vagina
EMAP:29942	
EMAP:29944	L rest of epithelial layer of upper vagina
EMAP:29414	muscular layer of upper part of vagina
EMAP:29946	
EMAP:30814	L vasculature of vagina
EMAP:30820	- clitoris (syn: genital tubercle of female)
EMAP:30822	- crus of clitoris
EMAP:30826	- epithelial layer of crus of clitoris
EMAP:30828	mesenchymal layer of crus of clitoris
EMAP:30824	L os clitoris
EMAP:30830	- glans clitoris
EMAP:30832	surface epithelium of glans clitoris
EMAP:30834	L mesenchymal layer of glans clitoris
EMAP:30836	L vasculature of clitoris
EMAP:29434	inguinal canal
EMAP:30838	- labia
EMAP:30840	- epithelial layer of labia
EMAP:30844	- gland of labia
EMAP:30842	mesenchymal layer of labia
EMAP:30846	L vasculature of labia
EMAP:29415	L inguinal ring
EMAP:29417	internal (syn: deep)
EMAP:29416	Lexternal (syn: superficial)

TS28 Groups

'G': Term is a group.

```
EMAP: 27551
                mouse
EMAP: 27553
                L organ system
EMAP:27555
                     visceral organ
                        urinary system
EMAP: 27559
                           metanephros (syn: kidney)
EMAP:29491
EMAP: 29492
                             renal cortex
EMAP:29499
                               cortical renal tubule
                                L cortical renal tubule of mature nephron GROUP
EMAP:31794 G
EMAP:29508
                                     distal convoluted tubule (syn: second convoluted tubule)
EMAP: 29505
                                     distal straight tubule (syn: thick ascending limb)
EMAP:31383
                                     - premacula segment of distal straight tubule
EMAP:29507
                                       macula densa
                                       postmacula segment of distal straight tubule
EMAP: 29506
EMAP:29502
                                     renal proximal convoluted tubule (syn: first convoluted tubule)
                                       segment 1 of proximal tubule
EMAP: 29658
EMAP:29660
                                       segment 2 of proximal tubule
                                developing capillary loop stage nephron GROUP (syn: stage III nephron)
EMAP: 29493 G
EMAP: 29499
                                L cortical renal tubule
                                   Frenal proximal tubule
EMAP: 29500
                                     - renal proximal convoluted tubule (syn: first convoluted tubule)
EMAP: 29502
EMAP: 29658
                                          segment 1 of proximal tubule
EMAP:29660
                                          segment 2 of proximal tubule
EMAP: 29662
                                       renal proximal straight tubule (syn: pars recta; segment 3 of proximal tubule)
EMAP:29503
                                     renal distal tubule
                                       distal convoluted tubule (syn: second convoluted tubule)
EMAP: 29508
EMAP:29505
                                       distal straight tubule (syn: thick ascending limb)
EMAP: 31383
                                         premacula segment of distal straight tubule
EMAP: 29507
                                         macula densa
EMAP:29506
                                        postmacula segment of distal straight tubule
EMAP:29509
                                     renal connecting tubule
EMAP:31794
                                     cortical renal tubule of mature nephron GROUP
EMAP: 29508
                                       distal convoluted tubule (syn: second convoluted tubule)
EMAP:29505
                                       distal straight tubule (syn: thick ascending limb)
EMAP: 31383
                                          premacula segment of distal straight tubule
EMAP:29507
                                          macula densa
                                         postmacula segment of distal straight tubule
EMAP: 29506
                                       renal proximal convoluted tubule (syn: first convoluted tubule)
EMAP: 29502
EMAP: 29658
                                          segment 1 of proximal tubule
EMAP:29660
                                          segment 2 of proximal tubule
EMAP: 29541 G
                                maturing nephron (syn: stage IV nephron)
EMAP:29499
                                L cortical renal tubule
EMAP:29500
                                     renal proximal tubule
EMAP:29502
                                       renal proximal convoluted tubule (syn: first convoluted tubule)
EMAP:29658
                                        - segment 1 of proximal tubule
EMAP:29660
                                         segment 2 of proximal tubule
EMAP:29662
                                     L renal proximal straight tubule (syn: pars recta; segment 3 of proximal tubule)
                                     renal distal tubule
EMAP: 29503
EMAP:29508
                                       distal convoluted tubule (syn: second convoluted tubule)
EMAP:29505
                                       distal straight tubule (syn: thick ascending limb)
EMAP:31383
                                          premacula segment of distal straight tubule
                                          macula densa
EMAP: 29507
EMAP:29506
                                         postmacula segment of distal straight tubule
                                    renal connecting tubule
EMAP: 29509
EMAP:31794
                                     cortical renal tubule of mature nephron GROUP
EMAP: 29508
                                       distal convoluted tubule (syn: second convoluted tubule)
                                       distal straight tubule (syn: thick ascending limb)
EMAP:29505
                                        |- premacula segment of distal straight tubule
EMAP: 31383
EMAP:29507
                                         macula densa
                                        bostmacula segment of distal straight tubule
EMAP: 29506
EMAP:29502
                                       renal proximal convoluted tubule (syn: first convoluted tubule)
EMAP: 29658
                                         segment 1 of proximal tubule
                                          segment 2 of proximal tubule
EMAP: 29660
EMAP:29556 G
                                late tubule
```

EMAP:29499	
EMAP:29500	
EMAP:29502	renal proximal convoluted tubule (syn: first convoluted tubule)
EMAP:29658	i i i i i - segment 1 of proximal tubule
EMAP:29660	L segment 2 of proximal tubule
EMAP:29662	renal proximal straight tubule (syn: pars recta; segment 3 of proximal tubule)
EMAP:29503	renal distal tubule
EMAP:29508	distal convoluted tubule (syn: second convoluted tubule)
EMAP: 29505	L distal straight tubule (syn: thick ascending limb)
EMAP:31383	
EMAP:29507	
	L postmacula segment of distal straight tubule
EMAP: 29506	
EMAP: 29509	renal connecting tubule
EMAP: 31794	
EMAP:29508	distal convoluted tubule (syn: second convoluted tubule)
EMAP:29505	distal straight tubule (syn: thick ascending limb)
EMAP:31383	premacula segment of distal straight tubule
EMAP:29507	F macula densa
EMAP:29506	L postmacula segment of distal straight tubule
EMAP:29502	
EMAP:29658	
EMAP:29660	L segment 2 of proximal tubule
EMAP:30453 G	
EMAP:29534	- extraglomerular mesangium
EMAP:29507	- macula densa
EMAP:29537	part of afferent arteriole forming the juxtaglomerular complex (syn: renin-producing cell)
EMAP:29566	renal medulla
EMAP:31499 G	
EMAP:31490	loop of Henle, outer medullary portion
EMAP:31492	thin descending limb
EMAP:31493	thin accepting limb (syn: ascending thin limb)
EMAP:31491	
EMAP:31494	
EMAP:31494 EMAP:29583	Loop of Henle, inner medullary portion
EMAP: 29584	thin descending limb
EMAP: 29586	bend (syn: U-turn)
EMAP: 29585	L thin ascending limb (syn: ascending thin limb)
EMAP:29594 G	
EMAP: 29499	cortical renal tubule
EMAP:29500	
EMAP:29502	- renal proximal convoluted tubule (syn: first convoluted tubule)
EMAP:29658	
EMAP:29660	
EMAP:29662	crenal proximal straight tubule (syn: pars recta; segment 3 of proximal tubule)
EMAP:29503	
EMAP:29508	
EMAP:29505	L distal straight tubule (syn: thick ascending limb)
EMAP:31383	
EMAP:29507	macula densa
EMAP:29506	i i i i postmacula segment of distal straight tubule
EMAP:29509	renal connecting tubule
EMAP:31794	Cortical renal tubule of mature nephron GROUP
EMAP:29508	distal convoluted tubule (syn: second convoluted tubule)
EMAP:29505	distal straight tubule (syn: thick ascending limb)
EMAP:31383	premacula segment of distal straight tubule
EMAP:29507	macula densa
EMAP:29506	postmacula segment of distal straight tubule
EMAP:29502	renal proximal convoluted tubule (syn: first convoluted tubule)
EMAP:29658	
	L segment 2 of proximal tubule
EMAP:29660 EMAP:29525	L mature renal corpuscle (syn: Malpighian corpuscle)
	glomerular tuft (syn: glomerulus)
EMAP: 29529	
EMAP: 29533	glomerular capillary system
EMAP: 29530	glomerular mesangium
EMAP: 29532	glomerular basement membrane
EMAP: 29531	L visceral epithelium of mature renal corpuscle (syn: podocyte layer)
EMAP: 29526	Bowman's capsule (syn: glomerular capsule)
EMAP:29528	parietal epithelium
EMAP:29527	L urinary space of renal corpuscle (syn: Bowman's space)
EMAP:29536	
EMAP:29537	part of afferent arteriole forming the juxtaglomerular complex (syn: renin-producing cell)
EMAP:29538	

EMAP:29535	
EMAP:29534	extraglomerular mesangium
EMAP:29540 G	- mature nephron
EMAP:29499	cortical renal tubule
EMAP:29500	renal proximal tubule
EMAP:29502	renal proximal convoluted tubule (syn: first convoluted tubule)
EMAP:29658	segment 1 of proximal tubule
EMAP:29660	L segment 2 of proximal tubule L renal proximal straight tubule (syn: pars recta; segment 3 of proximal tubule)
EMAP:29662 EMAP:29503	
EMAP:29508	distal convoluted tubule (syn: second convoluted tubule)
EMAP:29505	distal straight tubule (syn: thick ascending limb)
EMAP:31383	premacula segment of distal straight tubule
EMAP:29507	macula densa
EMAP:29506	L postmacula segment of distal straight tubule
EMAP:29509	renal connecting tubule
EMAP:31794	L cortical renal tubule of mature nephron GROUP
EMAP:29508	distal convoluted tubule (syn: second convoluted tubule) distal straight tubule (syn: thick ascending limb)
EMAP:29505 EMAP:31383	
EMAP:29507	macula densa
EMAP:29506	postmacula segment of distal straight tubule
EMAP:29502	renal proximal convoluted tubule (syn: first convoluted tubule)
EMAP:29658	segment 1 of proximal tubule
EMAP:29660	L segment 2 of proximal tubule
EMAP:31499	Loop of Henle group
EMAP: 31490	
EMAP: 31492	thin descending limb
EMAP:31493 EMAP:31491	
EMAP:31494	premacula segment of distal straight tubule (syn: thick ascending limb)
EMAP:29583	loop of Henle, inner medullary portion
EMAP:29584	thin descending limb
EMAP:29586	bend (syn: U-turn)
EMAP:29585	thin ascending limb (syn: ascending thin limb)
EMAP:29525	mature renal corpuscle (syn: Malpighian corpuscle)
EMAP: 29529	glomerular tuft (syn: glomerulus)
EMAP:29533 EMAP:29530	
EMAP:29532	glomerular hasangum
EMAP:29531	visceral epithelium of mature renal corpuscle (syn: podocyte layer)
EMAP:29526	Bowman's capsule (syn: glomerular capsule)
EMAP:29528	parietal epithelium
EMAP:29527	urinary space of renal corpuscle (syn: Bowman's space)
EMAP:29536	afterent arteriole
EMAP: 29537	
EMAP:29538 EMAP:29535	- rest of afferent afteriole
EMAP:29534	L extraglomerular mesangium
EMAP:29592 G	- collecting duct (syn: ureteric tree)
EMAP:29563	ureteric tip (syn: ureteric ampulla)
EMAP:31053	ureteric tree terminal branch excluding tip itself
EMAP:29599	L ureteric trunk
EMAP:29520	cortical collecting duct
EMAP:29983 EMAP:29587	
EMAP:29587 EMAP:29599 G	ureteric trunk
EMAP:29520	cortical collecting duct
EMAP:29983	- outer medullary collecting duct
EMAP:29587	inner medullary collecting duct (syn: papillary collecting duct)
EMAP:29593 G	renal interstitium group
EMAP:29564	nephrogenic interstitium (syn: peripheral blastema)
EMAP:29530	- glomerular mesangium
EMAP:29534	
EMAP:29521 EMAP:31295	renal cortical interstition (syn. cortical stroma)
EMAP:31427	periarterial fibroblasts of cortex
EMAP:31425	L peritubular fibroblasts of cortex
EMAP:31303	resident macrophages of the cortex (syn: renal monocytes of the cortex)
EMAP:31311	rest of renal cortical interstitium
EMAP:29982	outer medullary interstitium
EMAP:31388	outer medullary fibroblast

EMAP:31431	periarterial fibroblasts of outer medulla
EMAP:31429	L peritubular fibroblasts of outer medulla
EMAP:31393	resident macrophage of the outer medulla (syn: renal monocytes of the outer medulla)
EMAP:31398	L rest of outer medullary interstitium
EMAP: 29582	inner medullary interstitium (syn: papillary interstitium)
EMAP: 31403	
EMAP:31435 EMAP:31433	
EMAP:31408	
EMAP: 32570	L rest of inner medullary interstitium
EMAP: 29558	L perihilar interstitium
EMAP:31366	perihilar fibroblast
EMAP:31372	resident macrophage of the perihilar interstitium (syn: renal monocytes of the perihilar
interstitium)	
EMAP:31378	L rest of perihilar interstitium
EMAP:31475 G	- small blood vessels
EMAP:30042	Frenal cortical capillary
EMAP:29535	- efferent arteriole
EMAP:29590	
EMAP: 29536	
EMAP: 29537	part of afferent arteriole forming the juxtaglomerular complex (syn: renin-producing cell) rest of afferent arteriole
EMAP:29538 EMAP:29533	glomerular capillary system
EMAP:30048	- renal medullary capillary (syn: vasa recta)
EMAP:29591	L renal medullary venous system
EMAP:31449 G	L renal capillaries
EMAP:29533	glomerular capillary system
EMAP:30042	- renal cortical capillary
EMAP:30048	renal medullary capillary (syn: vasa recta)
EMAP:31776 G	developing vasculature of urinary system GROUP
EMAP:29435	- renal vasculature
EMAP:29533	- glomerular capillary system
EMAP: 29442	
EMAP:29981 EMAP:30002	
EMAP:30010	Smooth muscle layer of renal artery
EMAP:29441	- renal vein
EMAP:29969	- endothelial layer of renal vein
EMAP:30018	- endothelium of renal vein
EMAP:30026	Smooth muscle layer of renal vein
EMAP:30048	
EMAP: 29552	
EMAP:29551 EMAP:29536	- afferent arteriole
EMAP: 29537	part of afferent arteriole forming the juxtaglomerular complex (syn: renin-producing cell)
EMAP:29538	rest of afferent arteriole
EMAP:29554	- interlobular vein
EMAP:29555	i i i i arcuate vein
EMAP:30859	Lureteral vasculature
EMAP:29435 G	- renal vasculature
EMAP:29533	
EMAP:29442 EMAP:29981	- renal artery - endothelial layer of renal artery
EMAP:30002	- endothelium of renal artery
EMAP:30010	L smooth muscle layer of renal artery
EMAP:29441	- renal vein
EMAP:29969	- endothelial layer of renal vein
EMAP:30018	- endothelium of renal vein
EMAP:30026	smooth muscle layer of renal vein
EMAP:30048	- renal medullary capillary (syn: vasa recta)
EMAP:29552	h h interlobular artery
EMAP:29551	- arcuate artery
EMAP: 29536	
EMAP: 29537	
EMAP:29538 EMAP:29554	interlobular vein
EMAP: 29555	
EMAP:31442 G	- renal arterial system
EMAP:29442	- renal artery
EMAP:29981	endothelial layer of renal artery
EMAP:30002	endothelium of renal artery
EMAP:30010	L smooth muscle layer of renal artery

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interlobular artery
EMAP:29552
EMAP:29551
                            arcuate artery
EMAP:29590
                            renal medullary arterial system
EMAP:31456 G
                          renal venous system
EMAP:29441
                            renal vein
EMAP:29969
                               endothelial layer of renal vein
EMAP: 30018
                               endothelium of renal vein
EMAP:30026
                               smooth muscle layer of renal vein
                            interlobular vein
EMAP:29554
EMAP:29555
                            arcuate vein
EMAP: 29536
                            afferent arteriole
EMAP:29537
                             - part of afferent arteriole forming the juxtaglomerular complex (syn: renin-producing cell)
                               rest of afferent arteriole
EMAP: 29538
                            efferent arteriole
EMAP:29535
                            renal medullary venous system
EMAP: 29591
EMAP:31812 G
                        L nerves of urethra GROUP
EMAP:31800
                            nerve of pelvic urethra of female
EMAP:31790
                            nerve of pelvic urethra of male
EMAP: 31741
                            nerve of phallic urethra of female
EMAP:29601
                       reproductive system
EMAP:29348
                          male reproductive system
                            epididymis
EMAP: 29370
EMAP:30446 G
                               epithelium of epididymis
EMAP: 29762
                                 epithelium of caput of epididymis
                                  epithelium of corpus epididymis
EMAP:29756
                                  epithelium of cauda of epididymis
EMAP: 29694
EMAP:30448 G
                               muscle layer of epididymis
                                - muscle layer of caput of epididymis
EMAP: 29764
                                 muscle layer of corpus of epididymis
EMAP: 29758
EMAP:29752
                                  muscle layer of cauda of epididymis
                               adventitia of epididymis
EMAP:30444 G
EMAP:29766
                                  adventitia of caput of epididymis
                                  adventitia of corpus of epididymis
EMAP:29760
                                  adventitia of cauda of epididymis
EMAP: 29754
EMAP:30983 G
                             male external genitalia
EMAP:29380
                               penis (syn: genital tubercle of male)
                                  glans penis
EMAP: 29383
EMAP:29859
                                    epithelial layer of glans penis
                                    corpus spongiosum
EMAP: 29857
EMAP:29861
                                    rest of glans penis
EMAP: 29381
                                  crus penis
EMAP:29770
                                    os penis
                                    corpus spongiosum
EMAP: 29851
EMAP:29853
                                    epithelial layer of crus penis
                                    rest of crus penis
EMAP: 29855
                                  prepuce of male
EMAP: 29382
EMAP:30808
                                  vasculature of penis
EMAP:29384
                               scrotum
                                  epidermal layer of scrotum
EMAP: 29734
EMAP:29736
                                  - basal layer
                                    stratified layer
EMAP:29738
EMAP:29740
                                  dermal layer of scrotum
EMAP: 29742
                                  - hair follicle
EMAP:29744
                                    sweat gland
EMAP:29746
                                  septum of scrotum
                                  vasculature of scrotum
EMAP: 30792
EMAP:29396
                        female reproductive system
EMAP: 29419
                            ovarv
EMAP:31063 G
                             L ovigerous cord
                                L meiotic oocytes
EMAP: 31034
EMAP:29408
                             vagina
                             - epithelium of vagina
EMAP:30996 G
EMAP:29410
                                  epithelial layer of lower part of vagina
EMAP: 29936
                                    gland of lower vaginal epithelium
                                    rest of epithelial layer of lower vagina
EMAP:29938
                                  epithelial layer of upper part of vagina
EMAP: 29413
                                    gland of upper vaginal epithelium
EMAP:29942
                                    rest of epithelial layer of upper vagina
EMAP: 29944
EMAP:31002 G
                               muscular layer of vagina
EMAP:29411
                                - muscular layer of lower part of vagina
EMAP:29414
                                  muscular layer of upper part of vagina
EMAP:31004 G
                               adventita of vagina
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EMAP:29940	adventitia of lower part of vagina
EMAP:29946	L adventitia of upper part of vagina
EMAP:30990 G	L female external genitalia
EMAP:30820	clitoris (syn: genital tubercle of female)
EMAP:30822	- crus of clitoris
EMAP:30826	epithelial layer of crus of clitoris
EMAP:30828	mesenchymal layer of crus of clitoris
EMAP:30824	os clitoris
EMAP:30830	- glans clitoris
EMAP:30832	surface epithelium of glans clitoris
EMAP:30834	mesenchymal layer of glans clitoris
EMAP:30836	vasculature of clitoris
EMAP:30838	^Ĺ labia
EMAP:30840	- epithelial layer of labia
EMAP:30844	- gland of labia
EMAP:30842	- mesenchymal layer of labia
EMAP:30846	vasculature of labia
EMAP:31468 G	large blood vessels
EMAP:29551	- arcuate artery
EMAP:29555	- arcuate vein
EMAP:29552	interlobular artery
EMAP:29554	L interlobular vein