## Sharedby7

GO	Namespace	number of GO descendants	depth	Term name	F	М
GO:0008284	BP	97	D05	positive regulation of cell population proliferation	SPDYA	CLCF1
GO:0008270	MF	1	D06	zinc ion binding	LOC107307715	HHIP
GO:0003700	MF	10	D02	DNA-binding transcription factor activity	LOC107318989	TLX1

## Sharedby12

			Sharedby12			
GO	Namespace	number of GO descendants	depth	Term name	F	M
GO:0010468	BP	1028	D05	regulation of gene expression	TCF15	TSHZ2
GO:0010629	BP	339	D06	negative regulation of gene expression	NDFIP1	BBS2,PLAG1
GO:0010628	BP	193	D06	positive regulation of gene expression	ARX,FOXC1	BMP6,PLAG1
GO:0001822	BP	524	D04	kidney	FOXC1	BMP6
GO:0007420	BP	415	D04	development brain development	FOXC1	QARS1
GO:0001654	ВР	176	D05	eye development	FOXC1	BMP6
GO:0009952	BP	121	D04	anterior/posterior pattern	TCF15	PBX1
GO:0042475	BP	13	D05	odontogenesis of dentin-containing	FOXC1	NKX2-3
GO:0001958	BP	0	D04	tooth endochondral	FOXC1	BMP6
GO:0006351	BP	390	D09	ossification transcription. DNA-	TCEA3	PLAG1
GO:0006355	BP	306	D09	regulation of transcription. DNA-	FOXC1,TCEA3	MSX2,NEUROG3,N KX2-3,PBX1,TBX18
GO:0045944	ВР	63	D11	templated positive regulation of transcription by	FOXC1,TCF15	,TLX1 BMP6,NEUROG3,N KX2-3,PBX1,PLAG
GO:0000122	BP	33	D11	RNA polymerase II negative regulation	ARX,FOXC1	1 BMP6,MSX2,NEUR
GO:0006811	ВР	929	D04	of transcription by RNA polymerase II ion transport	HCN2,KCNC2	OG3 GABRA3
GO:0007219	BP	18	D06	Notch signaling pathway	FOXC1	TMEM100
GO:0001701	ВР	42	D07	in utero embryonic development	FOXC1	TMEM100
GO:0006879	BP	25	D10	cellular iron ion homeostasis	NDFIP1	BMP6
GO:0042127	BP	296	D04	regulation of cell population proliferation	ARX	NKX2-3,PBX1
GO:0016020	cc	1047	D02	membrane	HCN2,KCNC2	BBS2,GABRA3,YIP F4
GO:0005886	CC	470		plasma membrane	HCN2	TMEM100,YIPF4
GO:0043204 GO:0005829	CC	84	D02	perikaryon	FOXC1,GM2A	TMEM100  ACOT7,MARCHF2, MSX2,PLAG1,QAR S1,SRP54
GO:0048471	cc	7	D02	perinuclear region	NDFIP1	TMEM100
GO:0043231	CC	1289	D04	of cytoplasm intracellular membrane-	GM2A	YIPF4
GO:0005794 GO:0005634	CC	46 490	D05	bounded organelle Golgi apparatus nucleus	NDFIP1 FOXC1,TCEA3	YIPF4 NEUROG3,PBX1,S
GO:0005654	CC	86	D02	nucleoplasm	FOXC1	RP54,TBX18  ACOT7,KDM3B,PB X1,PIN4,PLAG1,QR
GO:0090575	CC	45	D03	RNA polymerase II transcription	TCF15	ICH1,TBX18
GO:0005515	MF	921	D02	regulator complex protein binding	KCNC2	BBS2,BTBD17,ESP
GO:0046983	MF	2	D03	protein dimerization	TCF15	N,LOC107321537,P ACSIN1 NEUROG3
GO:0042802	MF	1	D03	activity identical protein	HCN2	PACSIN1
GO:0005216	MF	133		binding		GABRA3
GO:0005216 GO:0005509	MF	133	D05	ion channel activity calcium ion binding	HCN2,KCNC2 CABP7	PLA2G12B
GO:0008270	MF	1	D06	zinc ion binding	TCEA3	LOC107321537,MA RCHF2
GO:0003677	MF	130	D04	DNA binding	ARX,FOXC1	MSX2,NKX2-3,PBX 1,PIN4,TLX1,TSHZ 2
GO:0043565	MF	62	D05	sequence-specific DNA binding	FOXC1	MSX2,PBX1
GO:1990837	MF	51	D06	sequence-specific double-stranded DNA binding	ARX	MSX2,NKX2-3,PBX 1,TBX18
GO:0000977	MF	14	D08	RNA polymerase II transcription regulatory region sequence-specific	FOXC1	PBX1
GO:0000978	MF	11	D09	DNA binding  RNA polymerase II cis-regulatory region sequence- specific DNA	ARX,FOXC1,TCF15	NEUROG3,PBX1,P LAG1
GO:0003700	MF	10	D02	binding  DNA-binding transcription factor activity	FOXC1	PBX1,TBX18,TLX1
GO:0000981	MF	3	D03	DNA-binding transcription factor activity. RNA polymerase II- specific	ARX,FOXC1	MSX2,NKX2-3,PBX 1,TLX1
GO:0001227	MF	0	D04	DNA-binding transcription repressor activity. RNA polymerase II- specific	ARX	NEUROG3
GO:0001228	MF	0	D04	DNA-binding transcription activator activity. RNA polymerase II- specific	FOXC1,TCF15	PBX1,PLAG1

## sharedbyF

GO	Namespace	number of GO descendants	depth	Term name	7	12
GO:0045893	BP	99	D10	positive regulation of transcription. DNA-templated	SNX5	FOXC1
GO:0045944	BP	63	D11	positive regulation of transcription by RNA polymerase II	IRF2BPL	FOXC1,TCF15
GO:0000122	BP	33	D11	negative regulation of transcription by RNA polymerase II	IRF2BPL	ARX,FOXC1
GO:0001701	BP	42	D07	in utero embryonic development	RUNDC1	FOXC1
GO:0005829	CC	84	D02	cytosol	SNX5	FOXC1,GM2A
GO:0048471	CC	7	D02	perinuclear region of cytoplasm	SNX5	NDFIP1
GO:0043231	CC	1289	D04	intracellular membrane- bounded organelle	SNX5	GM2A
GO:0005634	CC	490	D05	nucleus	LOC107307715,SP DYA	FOXC1,TCEA3
GO:0005654	CC	86	D02	nucleoplasm	IRF2BPL,SPDYA	FOXC1
GO:0003676	MF	313	D03	nucleic acid binding	LOC107325303	TCEA3
GO:0046983	MF	2	D03	protein dimerization activity	LOC107318989	TCF15
GO:0005509	MF	4	D05	calcium ion binding	LOC107307715	CABP7
GO:0008270	MF	1	D06	zinc ion binding	LOC107307715	TCEA3
GO:0003700	MF	10	D02	DNA-binding transcription factor activity	LOC107318989	FOXC1

## sharedbyM

GO	Namespace	number of GO descendants	depth	Term name	7	12
GO:0009887	ВР	982	D03	animal organ morphogenesis	HHIP	PBX1
GO:0006355	BP	306	D09	regulation of transcription. DNA-templated	TLX1	MSX2,NEUROG3,N KX2-3,PBX1,TBX18 ,TLX1
GO:0007165	BP	1654	D04	signal transduction	HHIP	SH2B2
GO:0030183	BP	47	D07	B cell differentiation	CLCF1	NKX2-3
GO:0008284	BP	97	D05	positive regulation of cell population proliferation	CLCF1	PBX1
GO:0005576	CC	93	D02	extracellular region	CLCF1	PLA2G12B
GO:0005515	MF	921	D02	protein binding	LINGO3	BBS2,BTBD17,ESP N,LOC107321537,P ACSIN1
GO:0008270	MF	1	D06	zinc ion binding	HHIP	LOC107321537,MA RCHF2
GO:0003677	MF	130	D04	DNA binding	TLX1	MSX2,NKX2-3,PBX 1,PIN4,TLX1,TSHZ 2
GO:0003700	MF	10	D02	DNA-binding transcription factor activity	TLX1	PBX1,TBX18,TLX1
GO:0000981	MF	3	D03	DNA-binding transcription factor activity. RNA polymerase II- specific	TLX1	MSX2,NKX2-3,PBX 1,TLX1

Names total elements fF12 fF7 fM12 fM7 2 GO:0003700 GO:0008270 fF12 fF7 fM12 10 GO:0005509 GO:0046983 GO:0005829 GO:0045944 GO:0005654 GO:0000122 GO:0001701 GO:0048471 GO:0043231 GO:0005634 fF7 fM12 fM7 2 GO:0008284 fF12 fM12 fM7 4 GO:0003677 GO:0006355 GO:0000981 GO:0005515 fF12 fF7 2 GO:0003676 GO:0045893 9 GO:0005737 fF7 fM12 GO:0004812 GO:0019901 GO:0061630 GO:0042803 GO:0043039 GO:0005524 GO:0016021 GO:0000166 fF12 fM7 2 GO:0048705 GO:0005887 fF12 fM12 27 GO:0005216 GO:0005886 GO:0043204 GO:0001654 GO:0001822 GO:0016020 GO:0006351 GO:0009952 GO:0001228 GO:0010629 GO:1990837 GO:0007420 GO:0042802 GO:0007219 GO:0001958 GO:0042127 GO:0010628 GO:0006811 GO:0000978 GO:0042475 GO:0001227 GO:0000977 GO:0010468 GO:0043565 GO:0006879 GO:0090575 GO:0005794 fM12 fM7 4 GO:0007165 GO:0005576 GO:0030183 GO:0009887 fF7 37 GO:0007140 GO:0045737 GO:0042147 GO:0043504 GO:0006974 GO:0007186 GO:0035091 GO:0004813 GO:0097422 GO:0006907 GO:0016500 GO:0019853 GO:0020037 GO:0006886 GO:0006264 GO:0006419 GO:0030904 GO:0004968 GO:0007399 GO:0008146 GO:0005739 GO:0031234 GO:0031901 GO:0070685 GO:0005741 GO:0034452 GO:0004341 GO:0030295 GO:0030234 GO:0006783 GO:0000002 GO:0000082 GO:0046628 GO:0004930 GO:0045860 GO:0008297 GO:0031313 fF12 121 GO:0030425 GO:0030199 GO:0032588 GO:0030203 GO:0043588 GO:0021853 GO:1902038 GO:0032713 GO:0035050 GO:0021846 GO:0060231 GO:0048844 GO:0048010 GO:1902257 GO:0050728 GO:0030001 GO:0009313 GO:0001756 GO:0032809 GO:0038084 GO:0021831 GO:0008283 GO:0048302 GO:0048341 GO:0031398 GO:0045618 GO:0071321 GO:0010718 GO:1904798 GO:0044325 GO:0001657 GO:0008301 GO:0001568 GO:1990841 GO:0000792 GO:0036438 GO:0097746 GO:0045930 GO:0001764 GO:0003016 GO:0003007 GO:0046622 GO:0016525 GO:0007517 GO:0072010 GO:0071805 GO:0008134 GO:0016477 GO:0035725 GO:0014031 GO:1990573 GO:0050884 GO:0032410 GO:0008047 GO:0048294 GO:0002829 GO:0000976 GO:0071320 GO:0007611 GO:0045619 GO:0007034 GO:0005222 GO:0048762 GO:0021772 GO:0008354 GO:1901534 GO:0006689 GO:0050877 GO:0007507 GO:0004563 GO:0021800 GO:0001503 GO:0036342 GO:0043388 GO:0008076 GO:0021549 GO:0045198 GO:0043583 GO:0071364 GO:0048644 GO:0051260 GO:0003682 GO:0055010 GO:0001541 GO:0001974 GO:0030900 GO:0050885 GO:0051224 GO:0048339 GO:0045211 GO:0098719 GO:0014032 GO:0005249 GO:0055085 GO:0001945 GO:0002761 GO:0019915 GO:0046620 GO:0042130 GO:0006813 GO:0044241 GO:1990869 GO:0070098 GO:0098855 GO:0001508 GO:0021759 GO:0042391 GO:0001501 GO:0043010 GO:0005938 GO:0042734 GO:0007411 GO:1903053 GO:0060038 GO:0050699 GO:0032808 GO:0072148 GO:0042755 GO:1901491 GO:0045732 GO:0005248 fM7 22 GO:0009953 GO:0007405 GO:0043524 GO:0097058 GO:0048295 GO:0042531 GO:0009968 GO:0097108 GO:0048711 GO:0005125 GO:0060441 GO:0009986 GO:0007166 GO:0003824 GO:0002639 GO:0007259 GO:0005102 GO:0030890 GO:0040036 GO:0097059 GO:0005127 GO:0045879 fM12 189 GO:0008083 GO:0021766 GO:0001525 GO:0008092 GO:0016607 GO:0030509 GO:0003924 GO:0006418 GO:0001922 GO:0045047 GO:0005730 GO:1903392 GO:0050776 GO:2001234 GO:0072189 GO:0004631 GO:0045603 GO:0005902 GO:0045665 GO:0043367 GO:0043021 GO:0034220 GO:0030137 GO:0009791 GO:0006821 GO:0004888 GO:0001570 GO:0045892 GO:0035265 GO:1900535 GO:0045806 GO:0034464 GO:0000062 GO:0006614 GO:0051930 GO:0050848 GO:0030534 GO:2000048 GO:0016567 GO:0046982 GO:0003323 GO:0005667 GO:0060586 GO:0030326 GO:0030278 GO:0001726 GO:0060930 GO:0006644 GO:0006955 GO:0008286 GO:0051216 GO:0048666 GO:0032873 GO:0050873 GO:0060931 GO:0003197 GO:0030539 GO:0033210 GO:0048535 GO:0005543 GO:0006954 GO:0003779 GO:0060395 GO:0048621 GO:0005198 GO:0060252 GO:0005783 GO:0007214 GO:0098833 GO:0001658 GO:0004860 GO:0043117 GO:0036116 GO:0030154 GO:0005694 GO:0035264 GO:0015937 GO:0032349 GO:0019221 GO:0071773 GO:0035556 GO:0016790 GO:0030225 GO:0005923 GO:0045095 GO:0042311 GO:0035591 GO:0005813 GO:0051015 GO:0001649 GO:0007601 GO:0070700 GO:0060271 GO:0021987 GO:0030036 GO:0019003 GO:0031018 GO:0006364 GO:0045494 GO:0004623 GO:0030325 GO:0033365 GO:0048706 GO:0008104 GO:0072657 GO:0001103 GO:0038108 GO:0036064 GO:0010862 GO:0048536 GO:0060736 GO:0001938 GO:0017101 GO:0050900 GO:0045669 GO:0071281 GO:0097320 GO:0050731 GO:0005068 GO:0001725 GO:0030942 GO:0016042 GO:0003198 GO:0006425 GO:0060296 GO:0035162 GO:0008312 GO:2001214 GO:0006641 GO:0048538 GO:0048565 GO:0051792 GO:0040018 GO:0045666 GO:0043491 GO:0032587 GO:0032991 GO:0098684 GO:0022008 GO:0048541 GO:0098907 GO:0005786 GO:0036114 GO:0006412 GO:0009954 GO:0014824 GO:0050851 GO:0048500 GO:0031666 GO:0036042 GO:0001776 GO:0004890 GO:0032420 GO:0001655 GO:0048854 GO:0019222 GO:0006469 GO:0045444 GO:0048537 GO:0002317 GO:0005230 GO:0031410 GO:0048568 GO:0050482 GO:0007015 GO:0051017 GO:0030851 GO:0040015 GO:0060842 GO:0006695 GO:0005884 GO:0006508 GO:0043001 GO:0005525 GO:0003755 GO:0004819 GO:0044321 GO:0031514 GO:0016290 GO:0004252 GO:0048488 GO:0060391 GO:1905515 fM7 fF12 22 121 2 189 37 27 10

2

Venn go

Nome	Venn genes	alamant
Names fM12 fM7	total 1	elements TLX1
fF7	16	RUNDC1
		LOC107318991
		KIAA1210
		LOC107318988
		MGME1
		LOC107325303
		LOC107318989
		LOC116653897
		LOC107321106 IRF2BPL
		LOC107307715
		SOX17
		SNX5
		SPDYA
		HS3ST2
		PGRMC1
fF12	10	TCF15
		FOXC1
		NDFIP1
		GM2A
		LOC107309236 KCNC2
		TCEA3
		HCN2
		ARX
		CABP7
fM7	6	CLCF1
		SLC25A10
		LOC107313421
		RAD9A
		HHIP
0440	40	LINGO3
fM12	42	NEUROG3 PLA2G12B
		BTBD17
		GABRA3
		LOC107322710
		PLAG1
		TBX18
		LOC107314254
		BMP6
		LOC107314253
		FOXL2
		LOC116653392 SH2B2
		QRICH1
		BBS2
		NKX2-3
		PIN4
		LOC107321537
		KY
		YIPF4
		LOC107315039
		QARS1
		MARCHF2 TSHZ2
		PACSIN1
		KDM3B
		SRP54
		LOC107325817
		MSX2
		TMEM100
		PBX1
		NCR3LG1
		PMVK
		LOC107319878
		LOC107319226
		ABHD11
		ABHD11 ESPN
		ABHD11 ESPN SLC6A8
		ESPN
		ESPN SLC6A8
		ESPN SLC6A8 ACOT7

