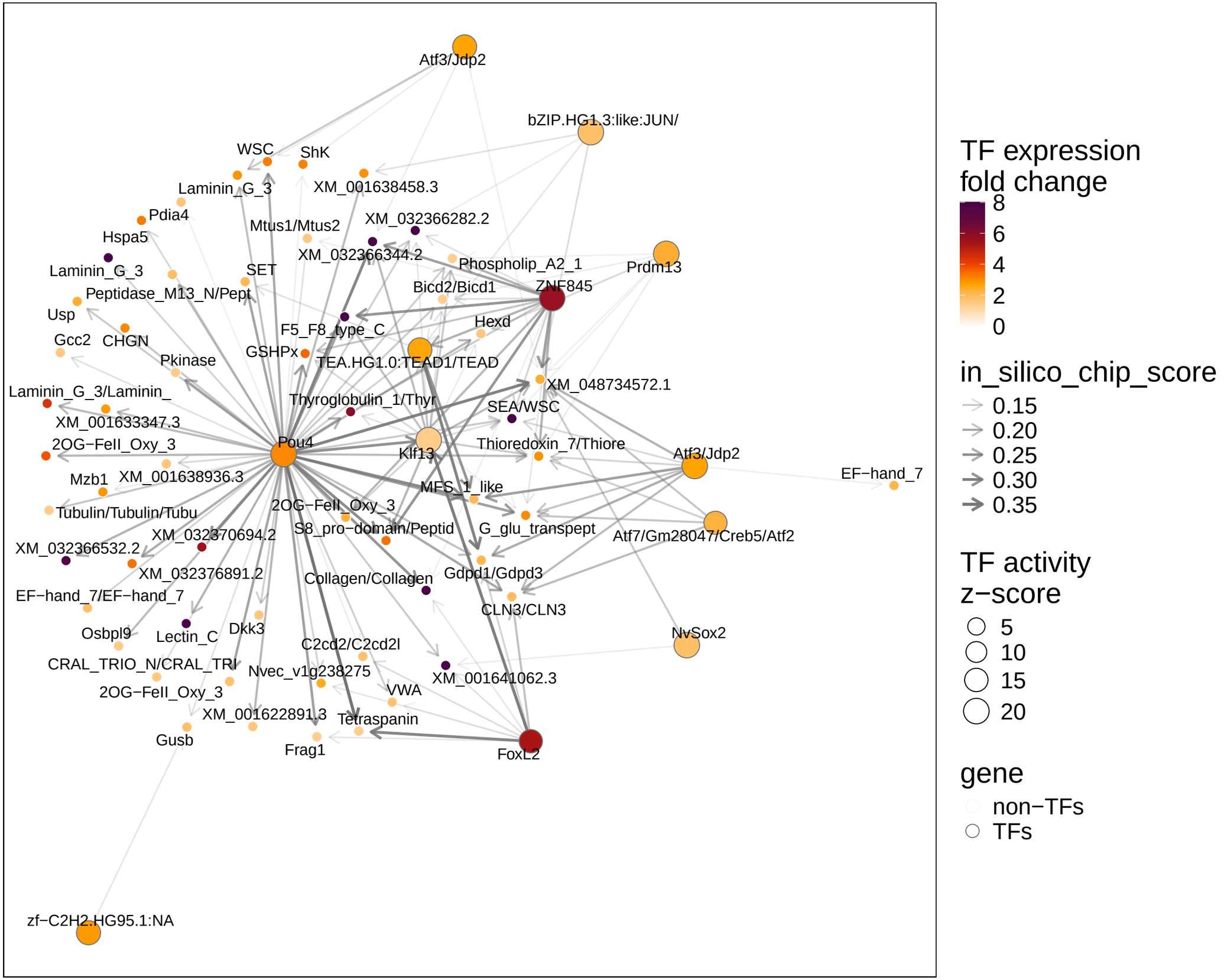
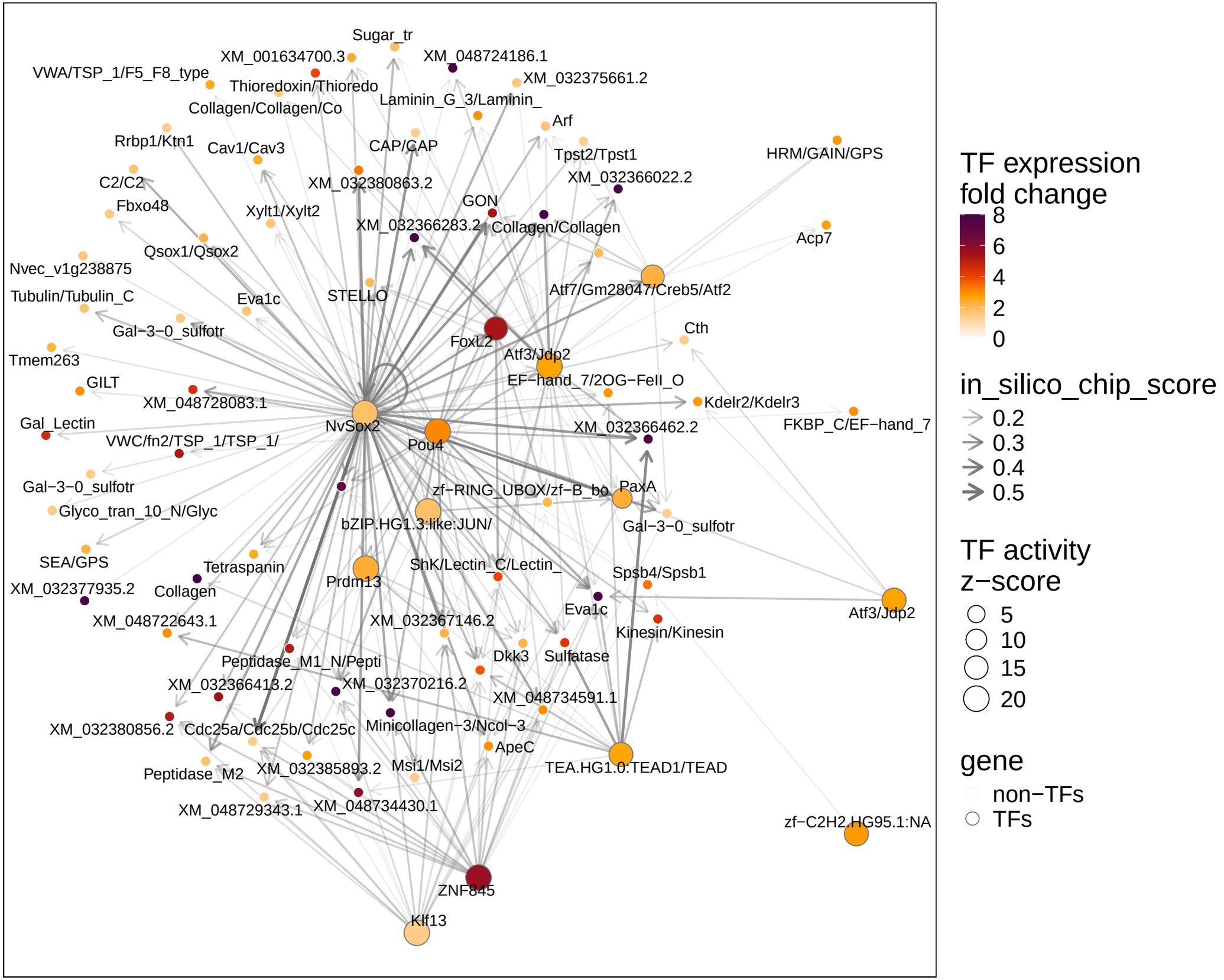
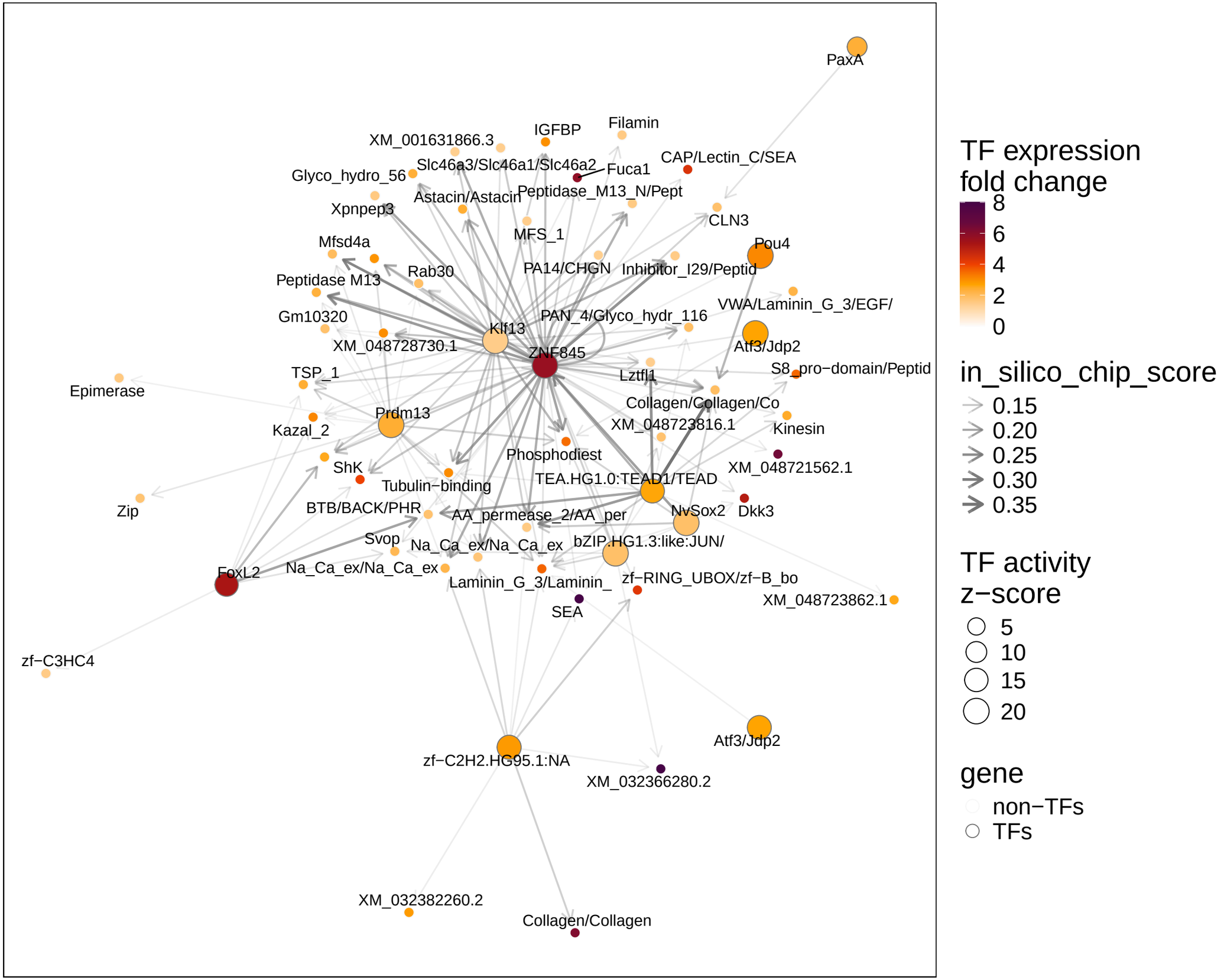
cnidocyte module 1



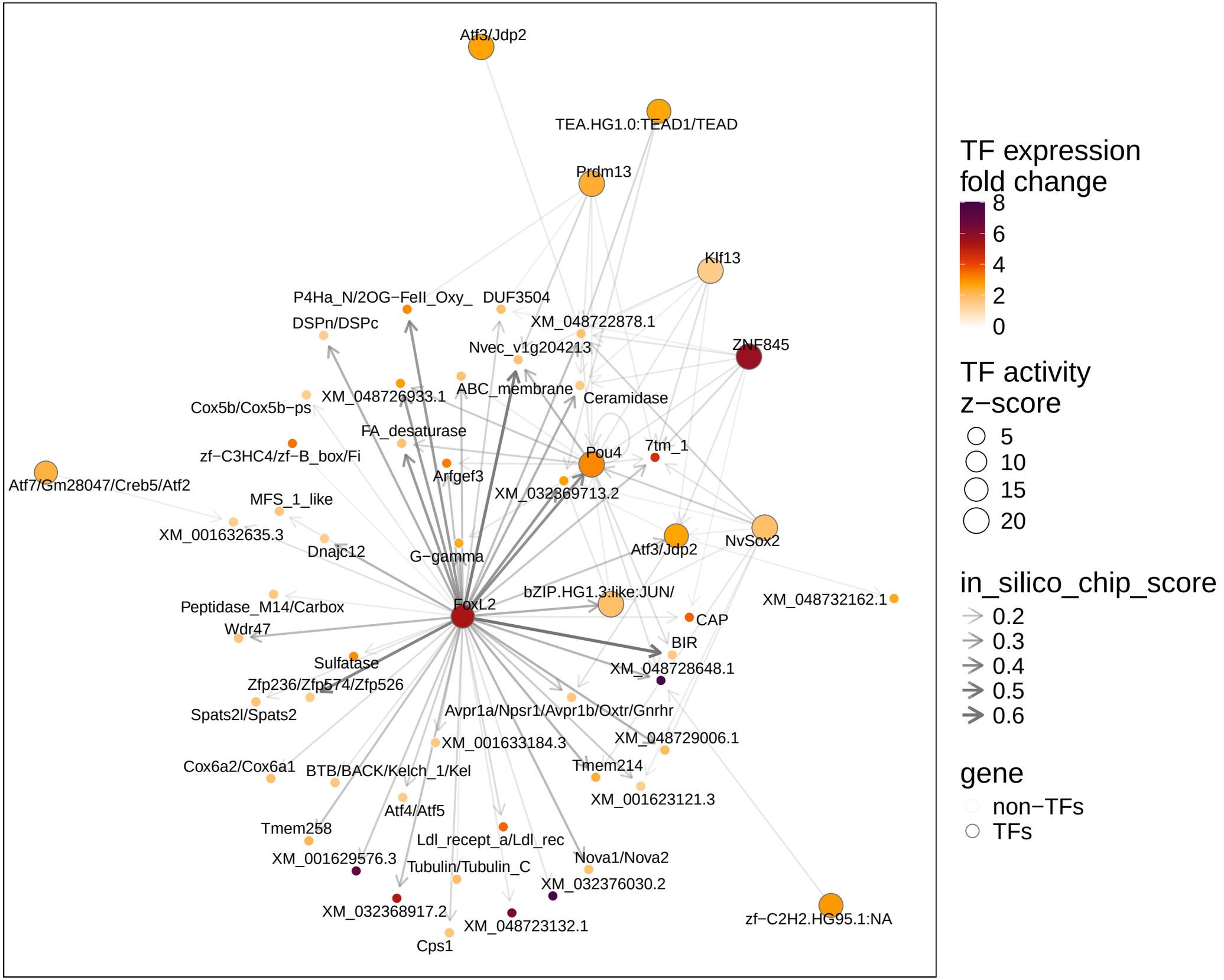
cnidocyte module 2



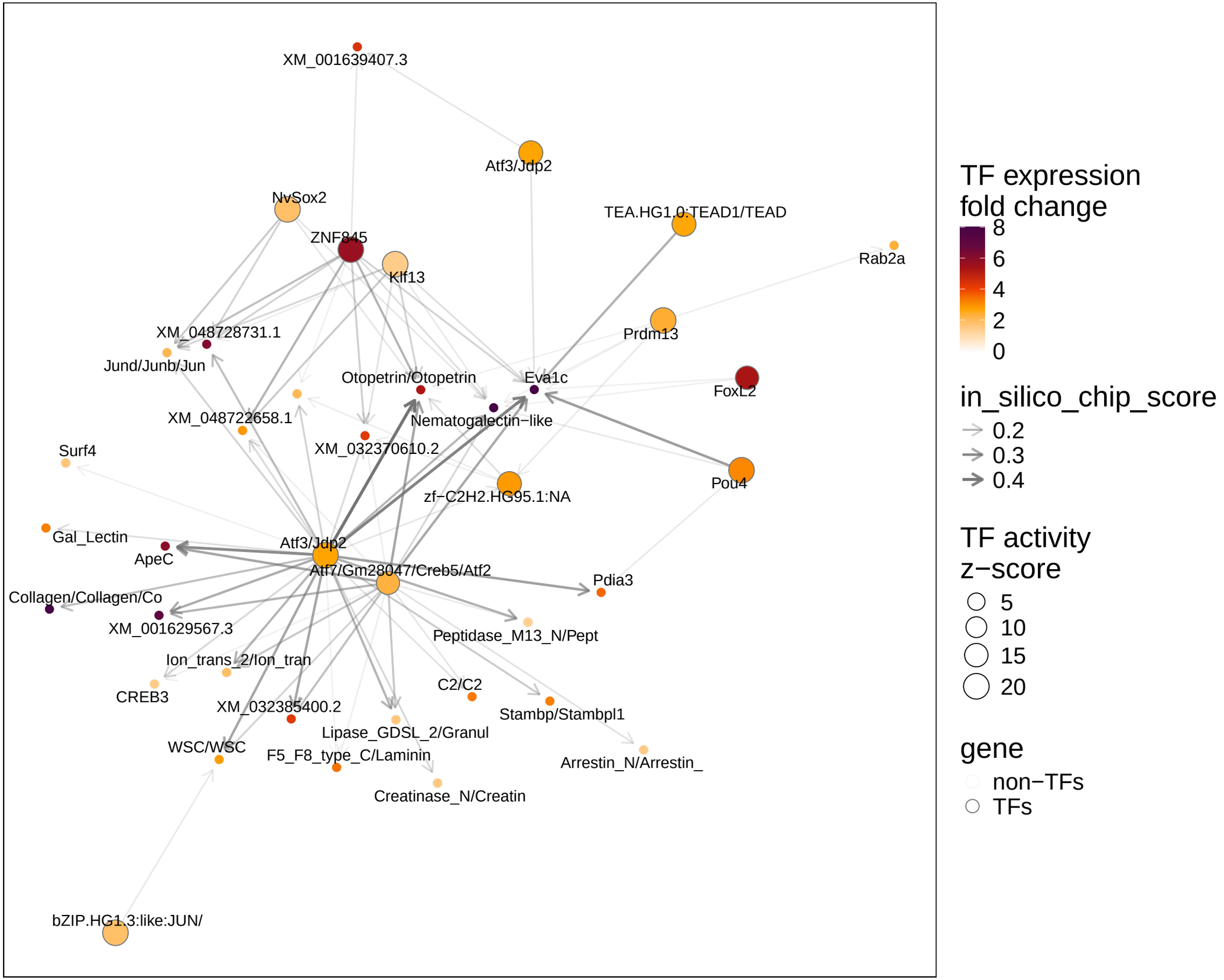
cnidocyte module 3



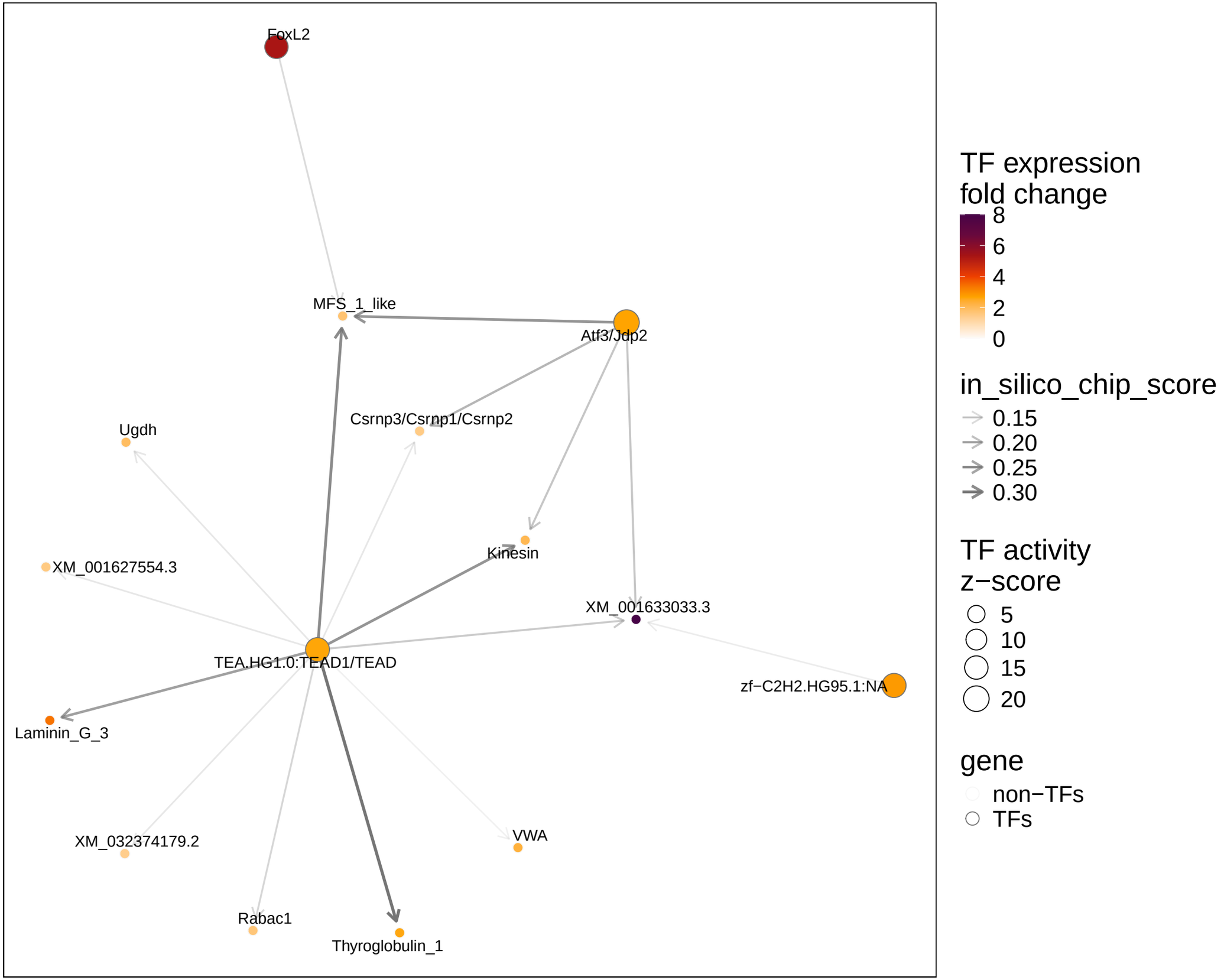
cnidocyte module 4



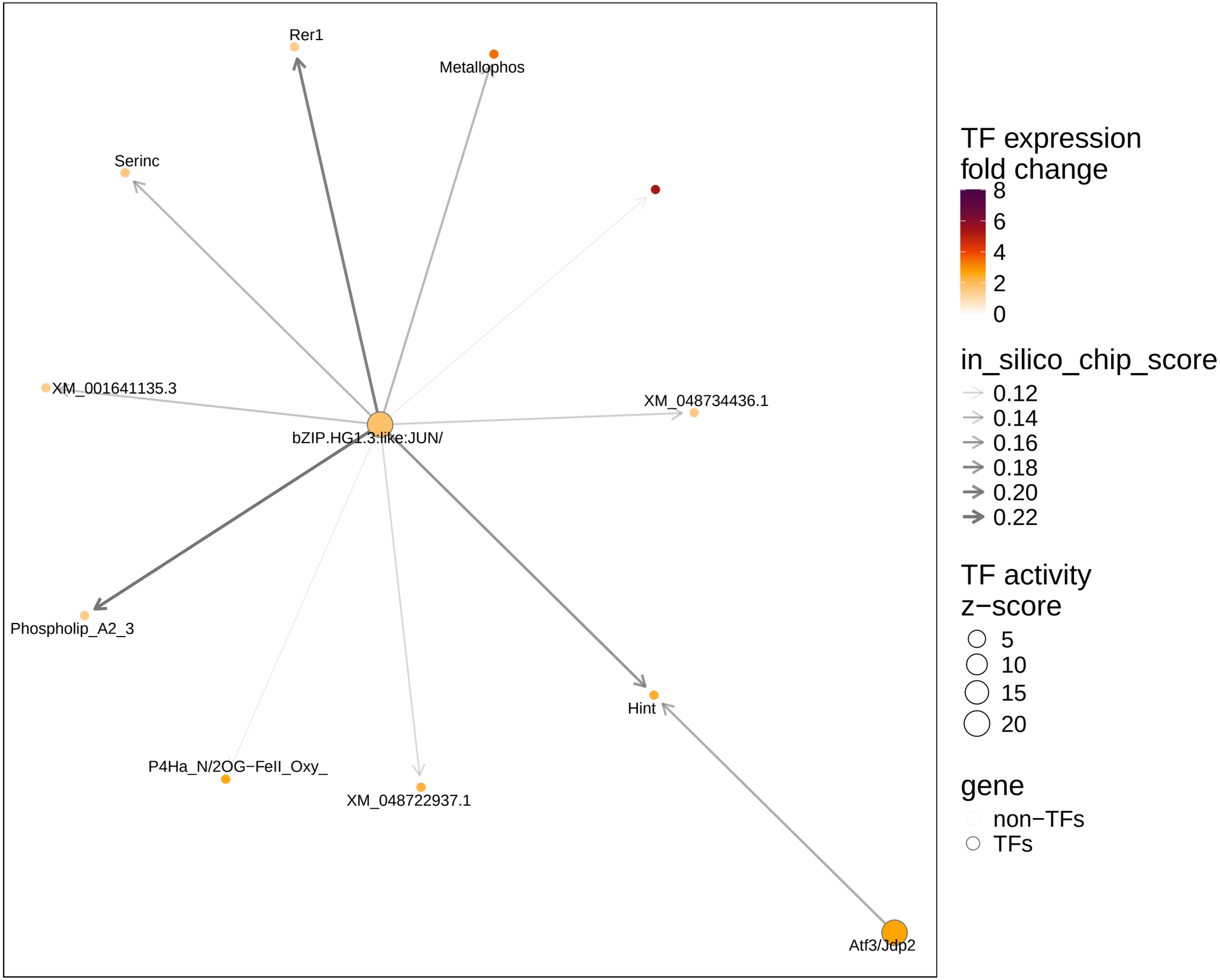
cnidocyte module 5



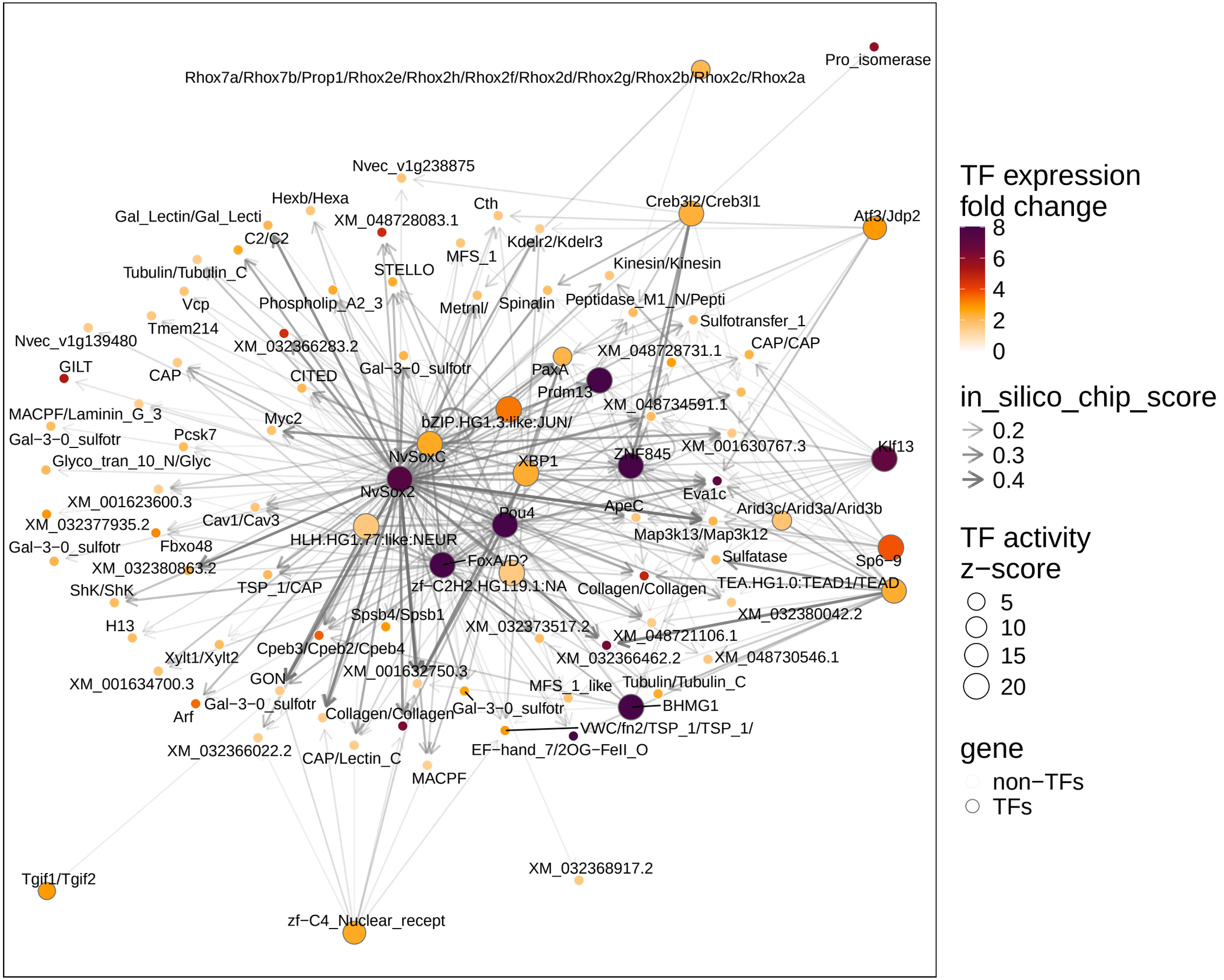
cnidocyte module 6



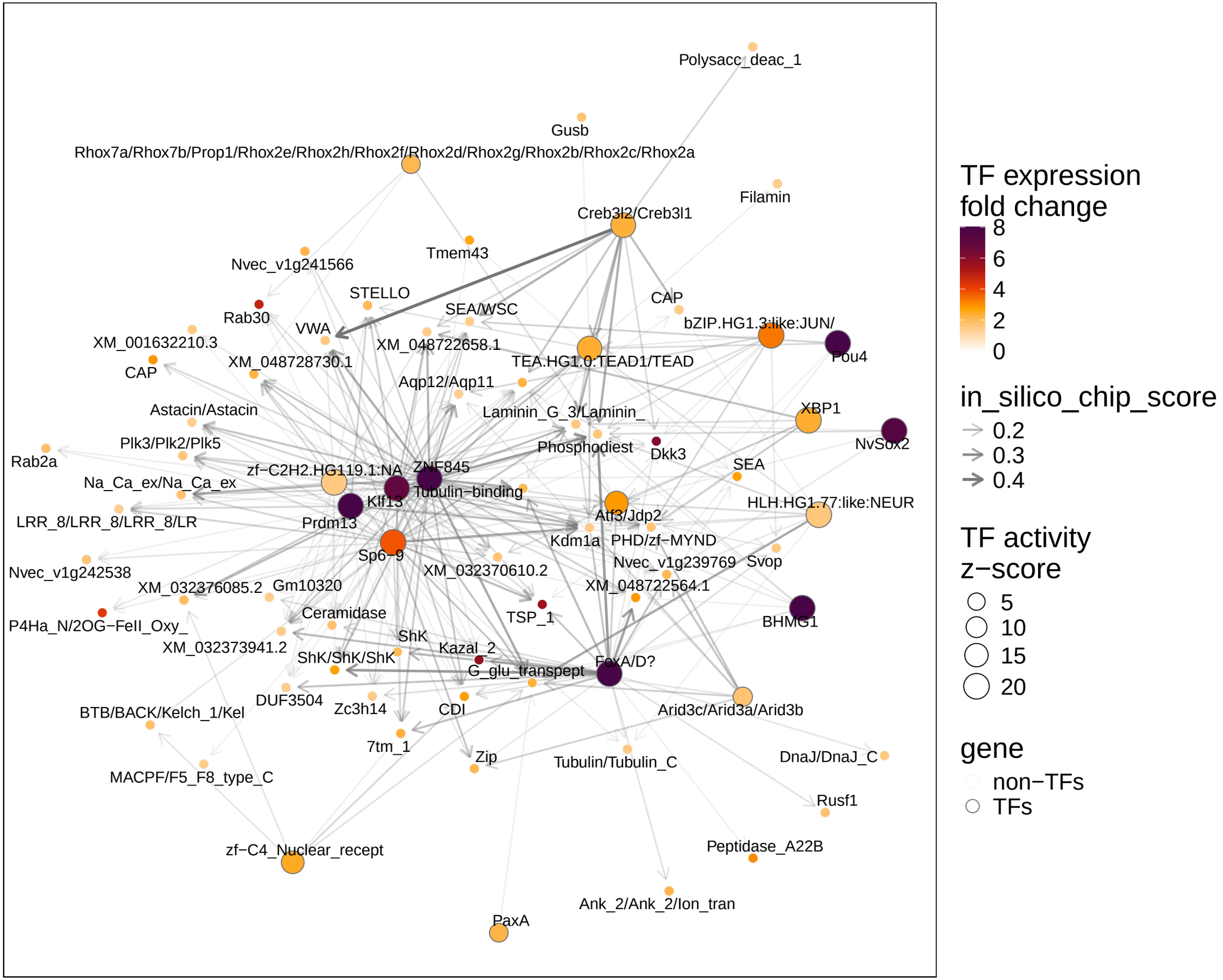
cnidocyte module 7



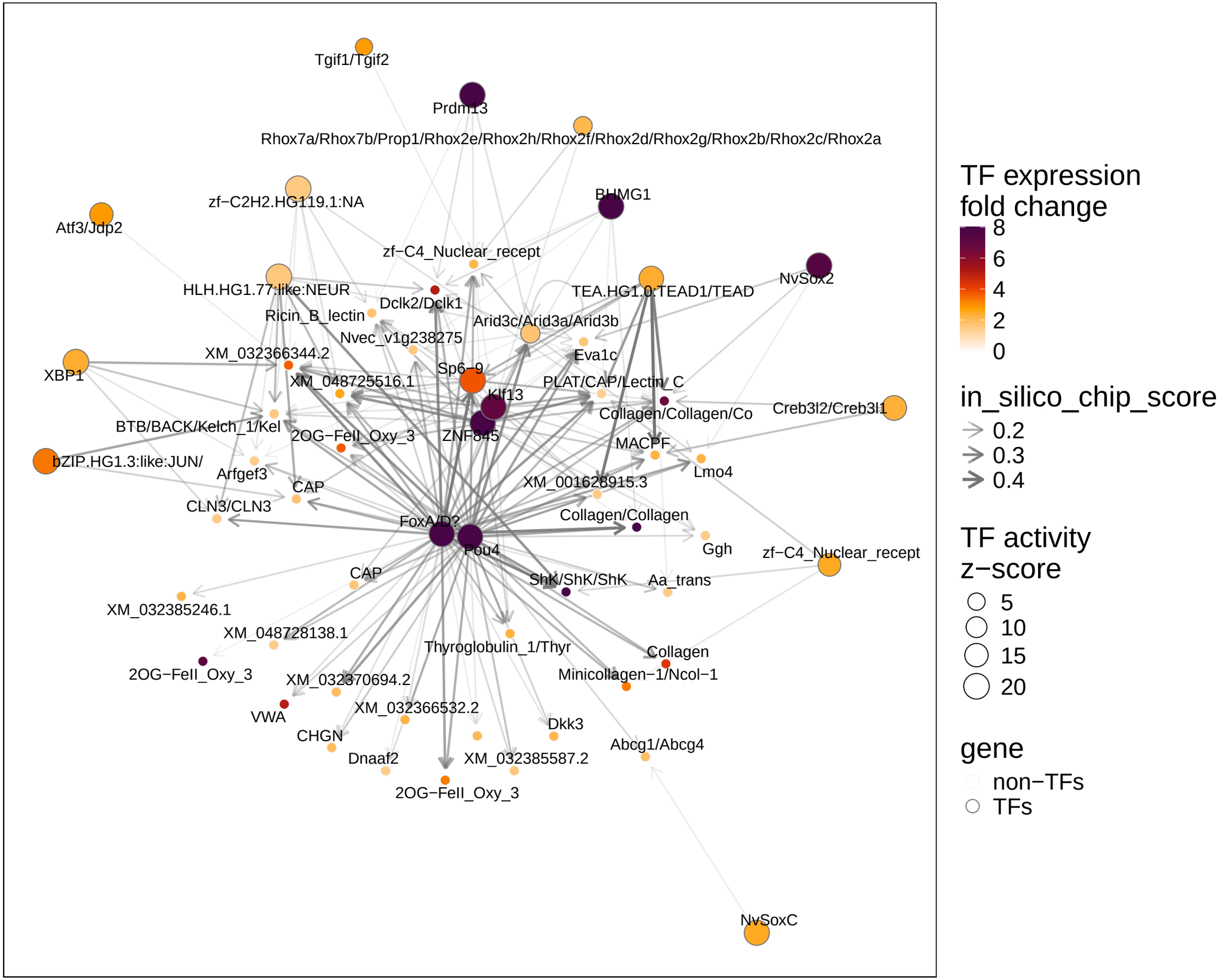
cnidocyte gastrula module 1



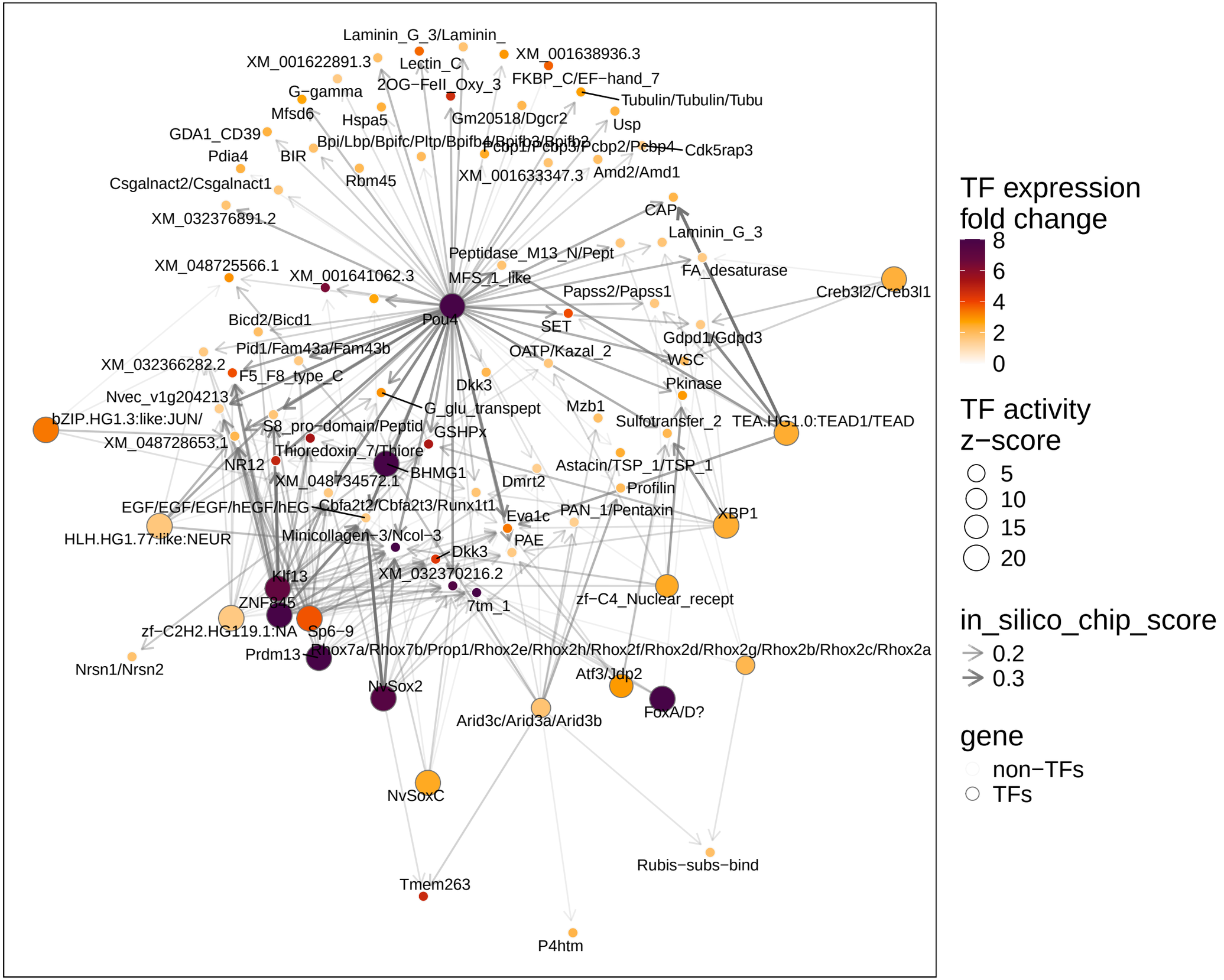
cnidocyte gastrula module 2



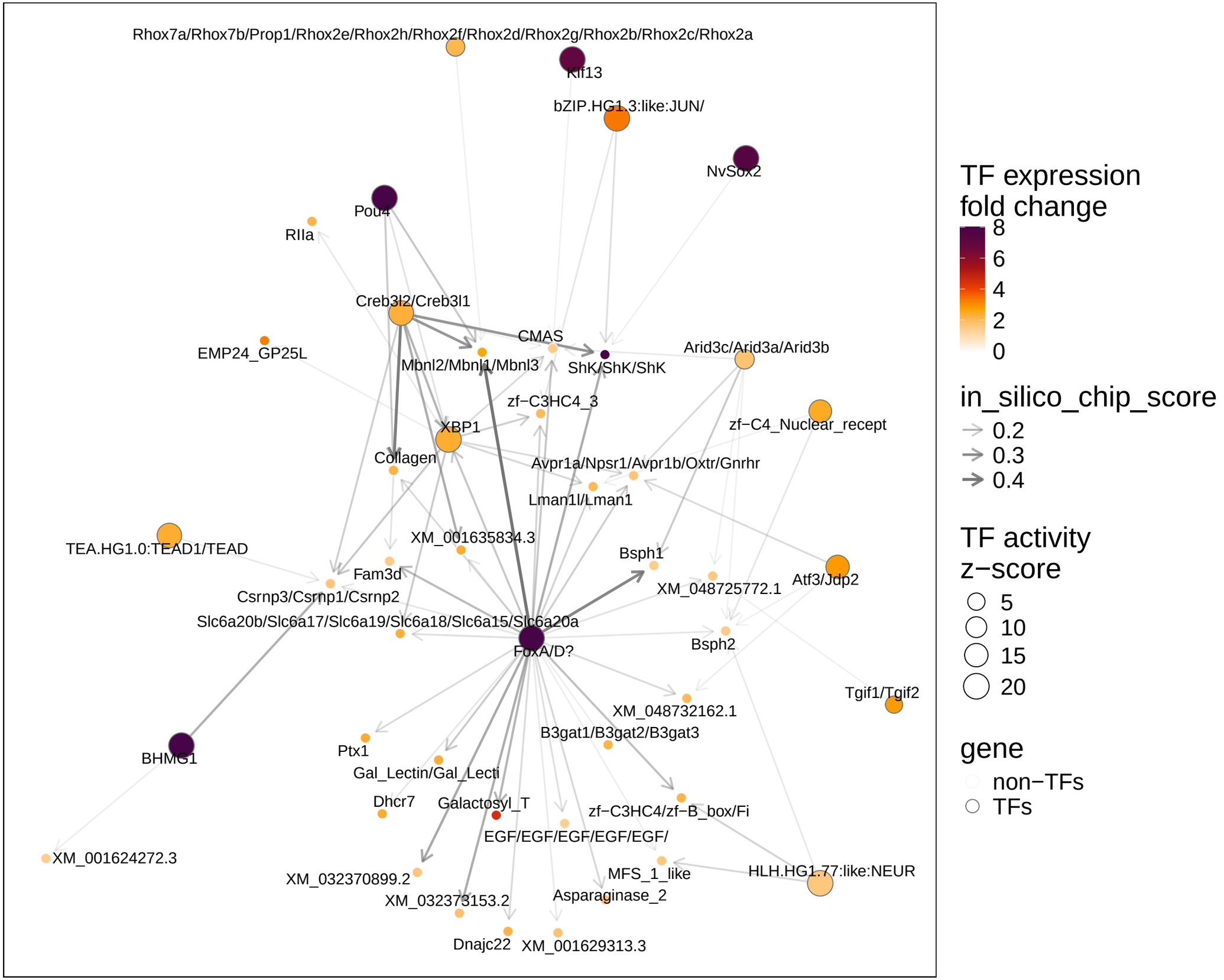
cnidocyte gastrula module 3



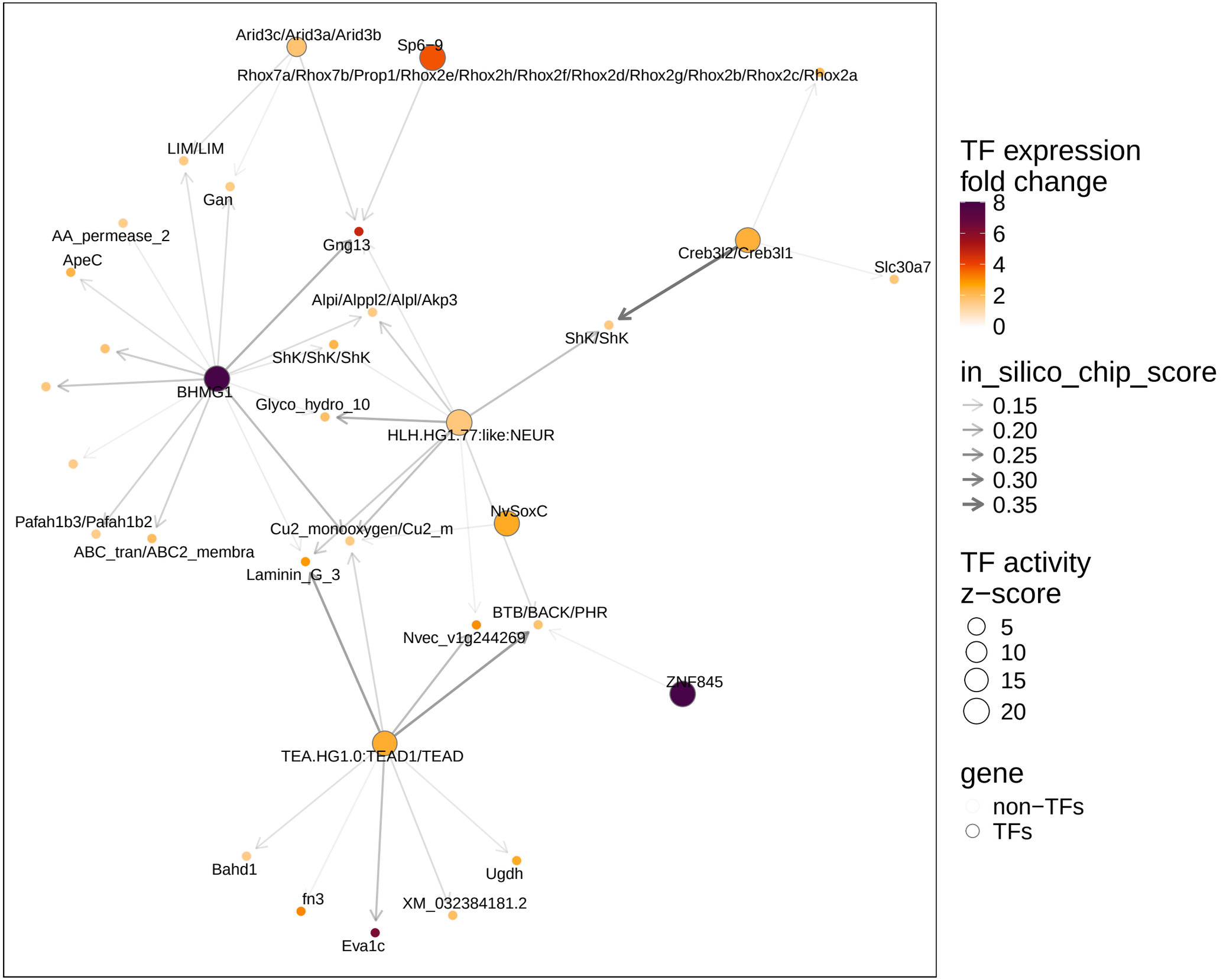
cnidocyte gastrula module 4



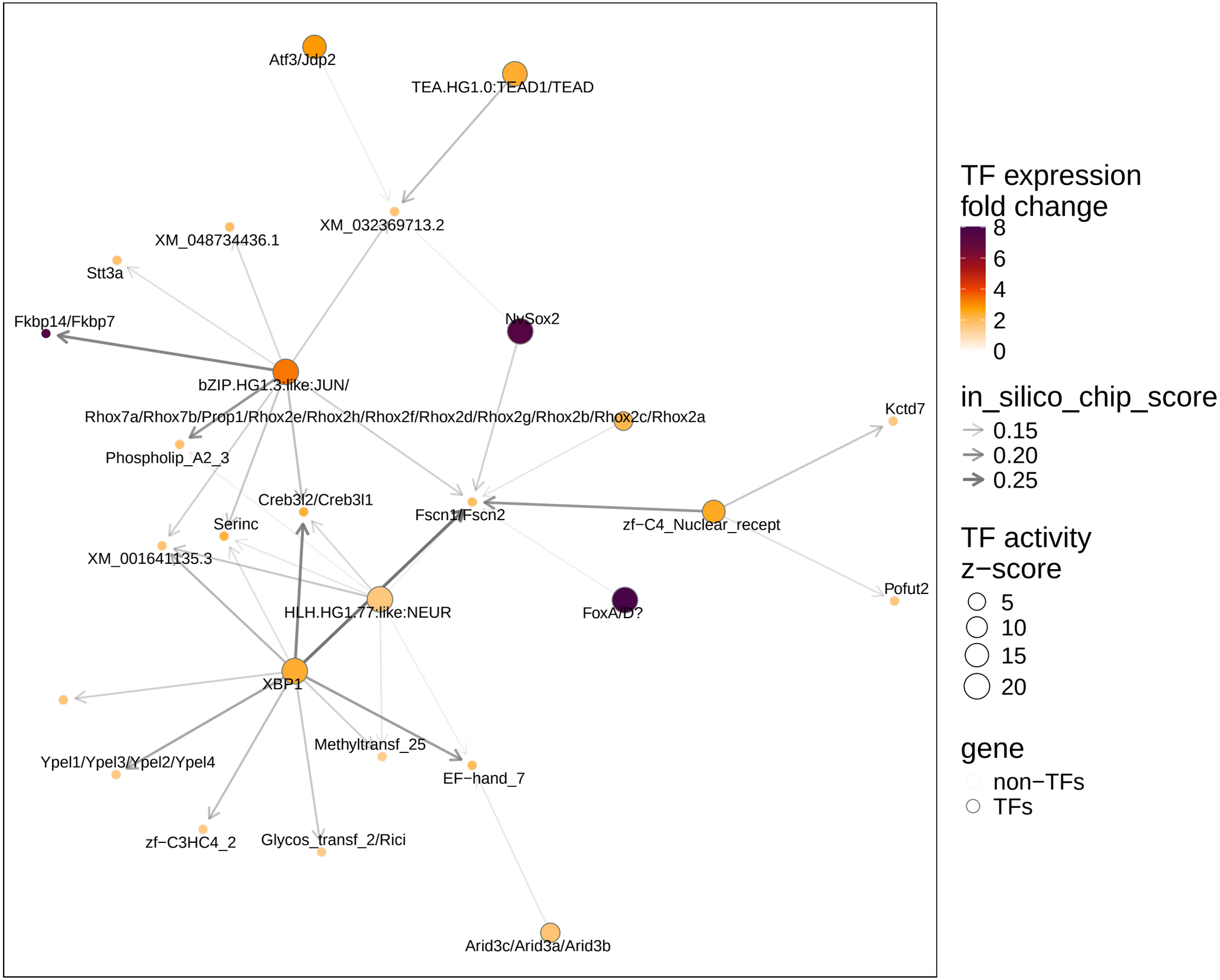
cnidocyte gastrula module 5



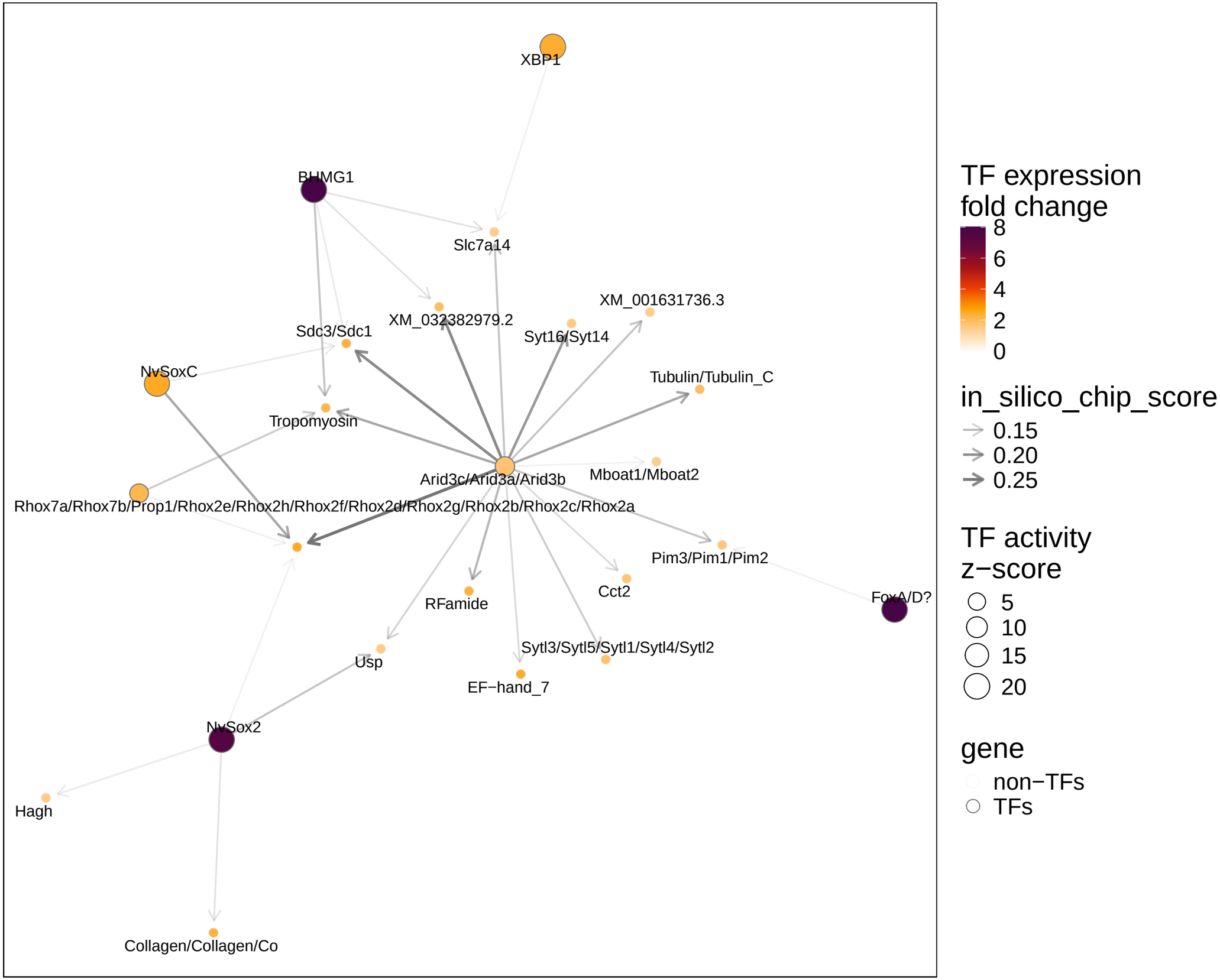
cnidocyte gastrula module 6



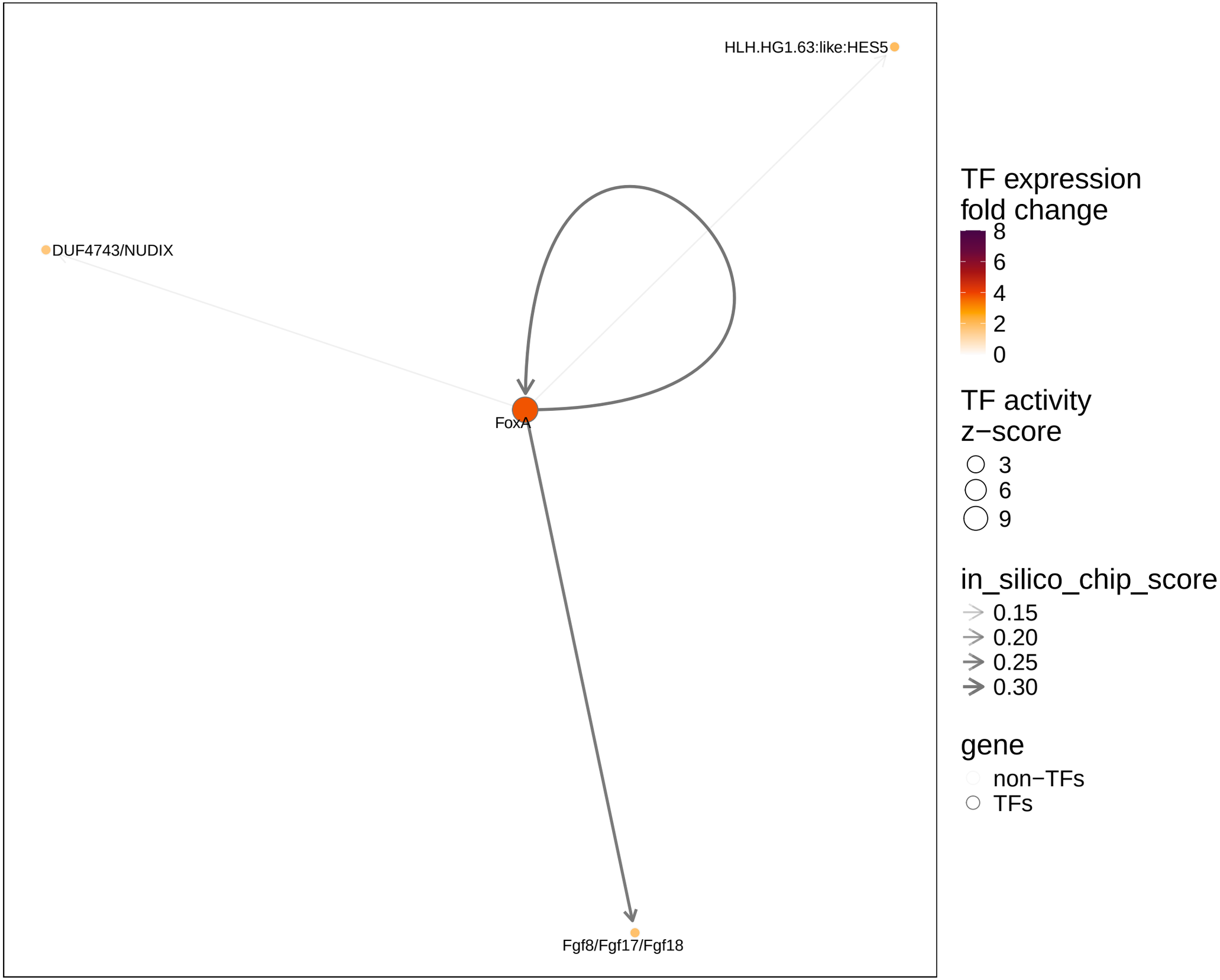
cnidocyte gastrula module 7



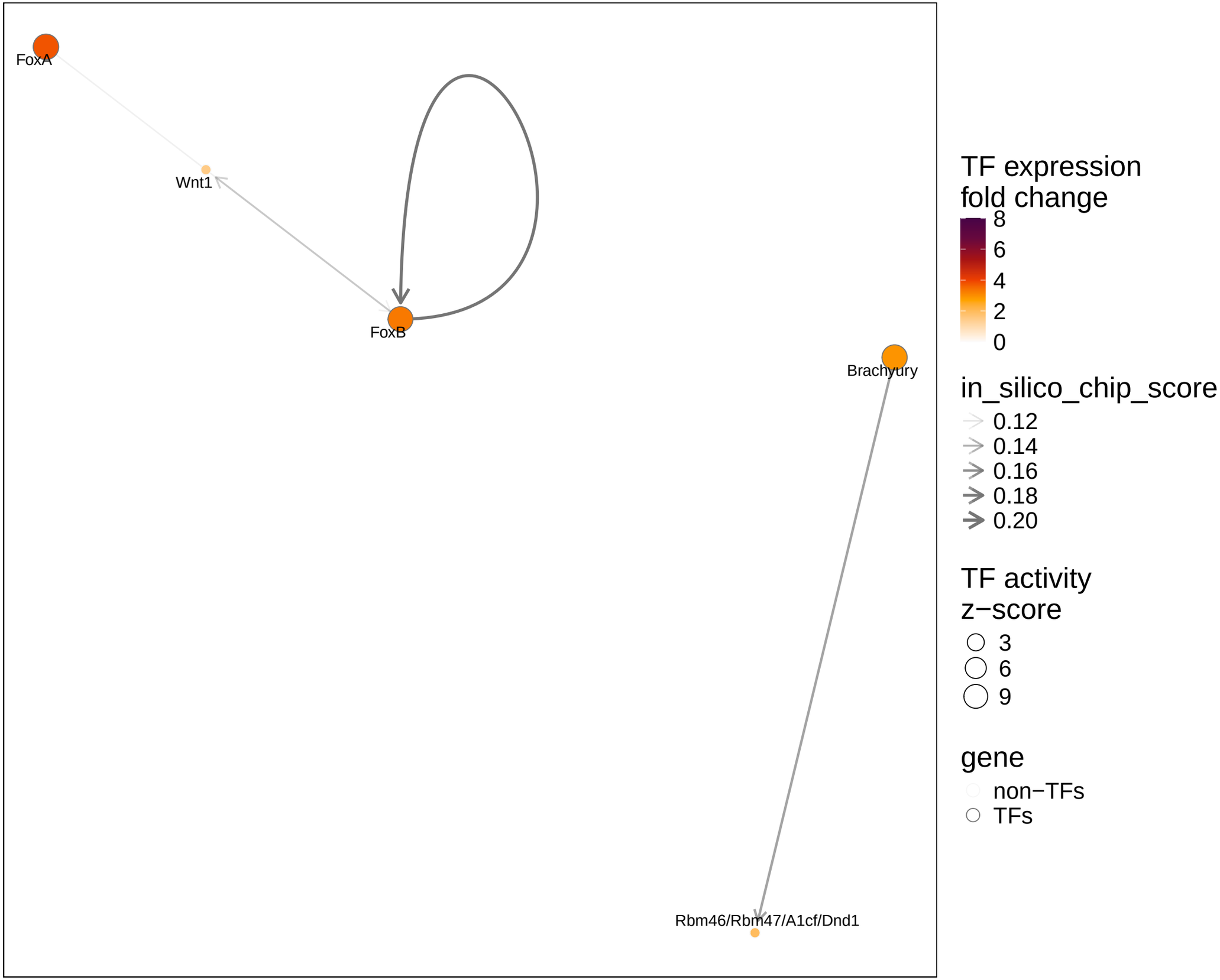
cnidocyte gastrula module 8



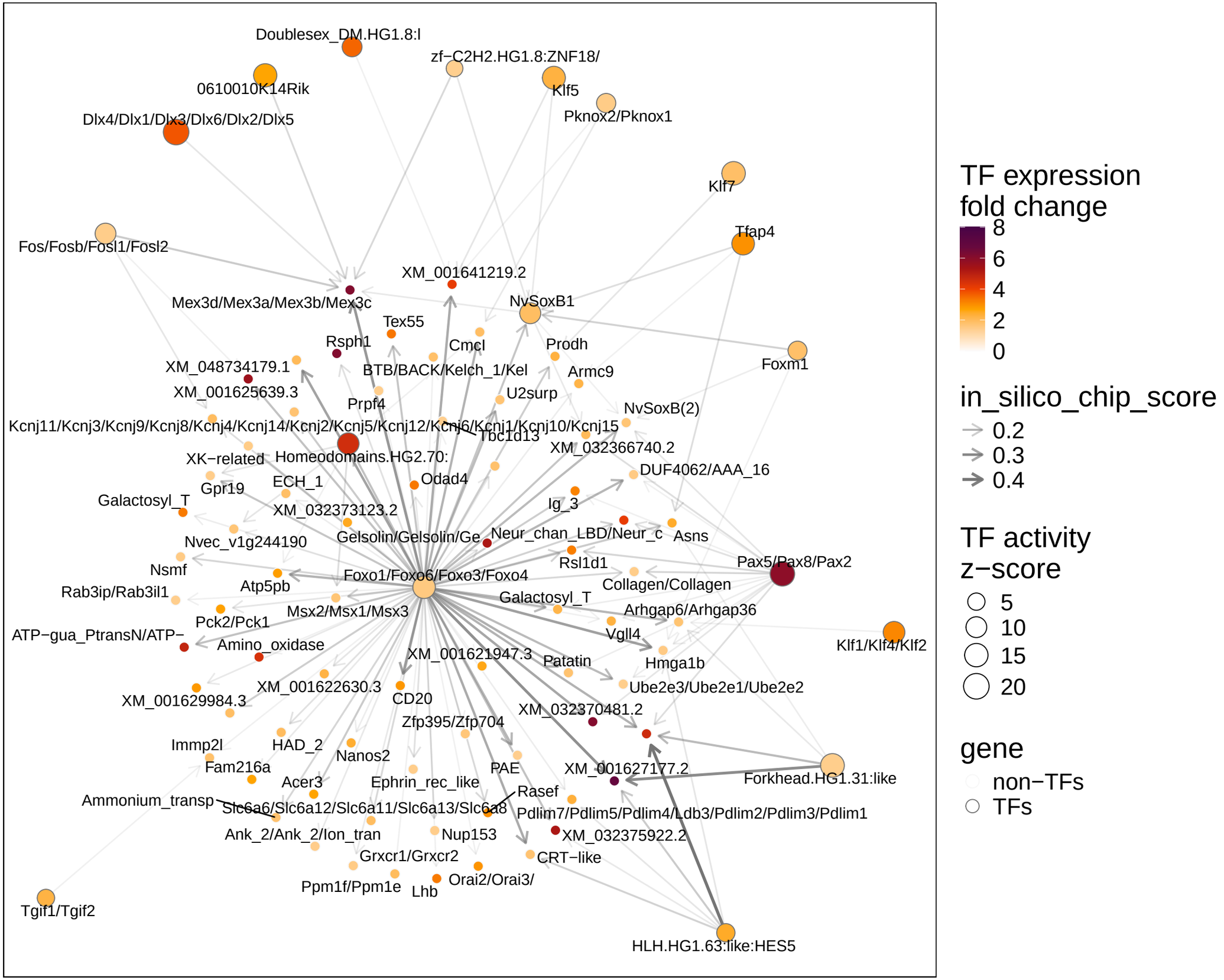
ecto pharynx module 1



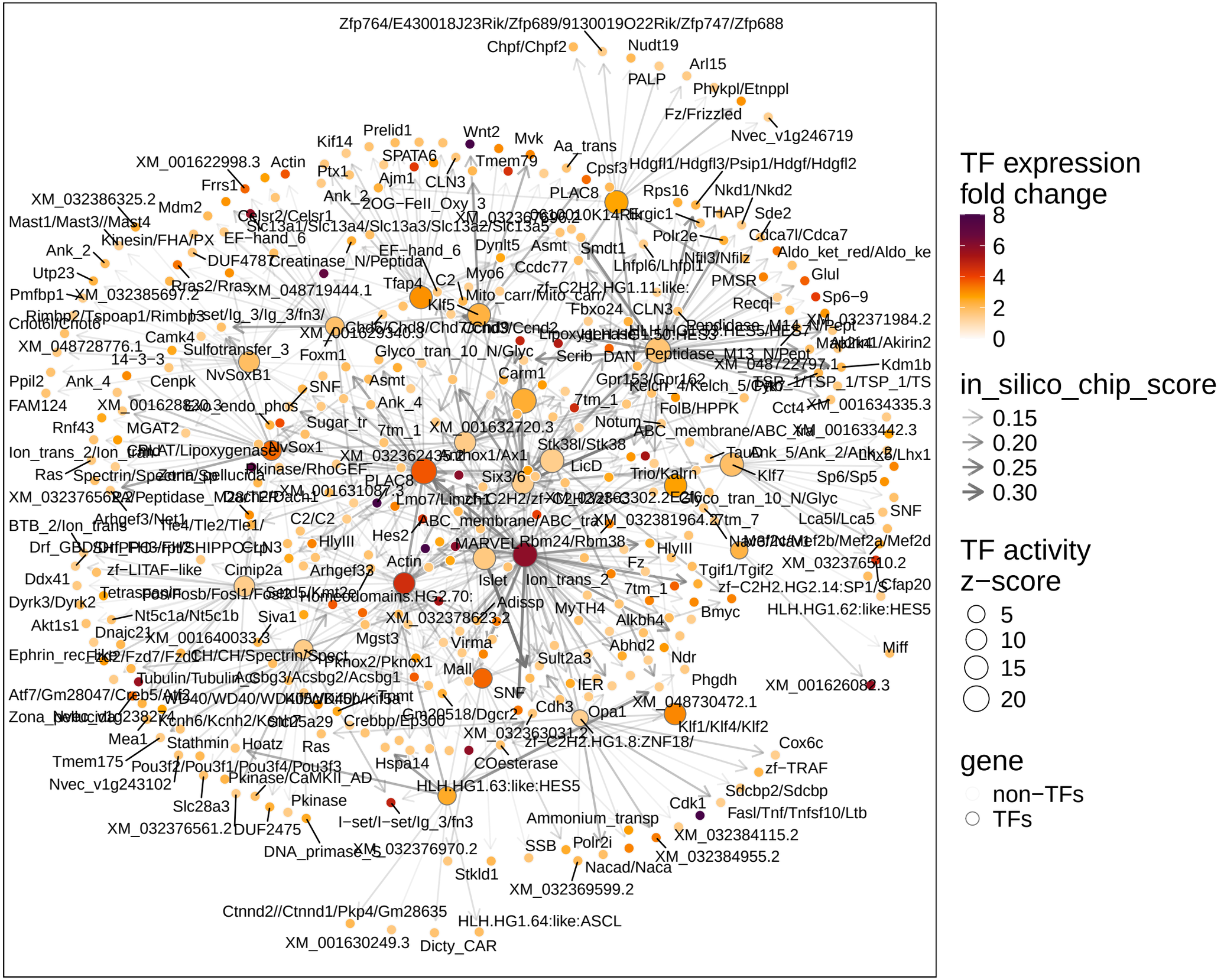
ecto pharynx module 2



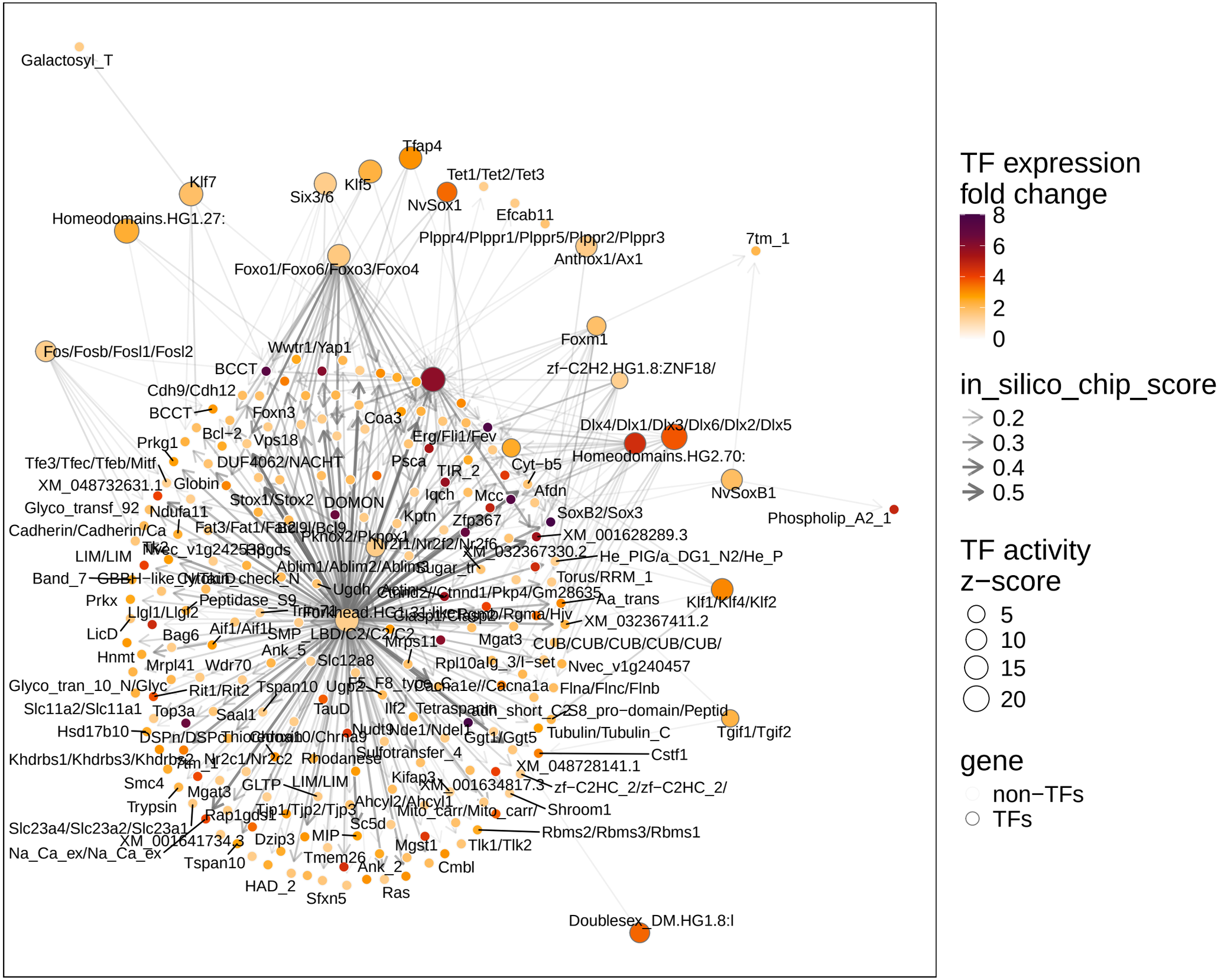
ectoderm module 1



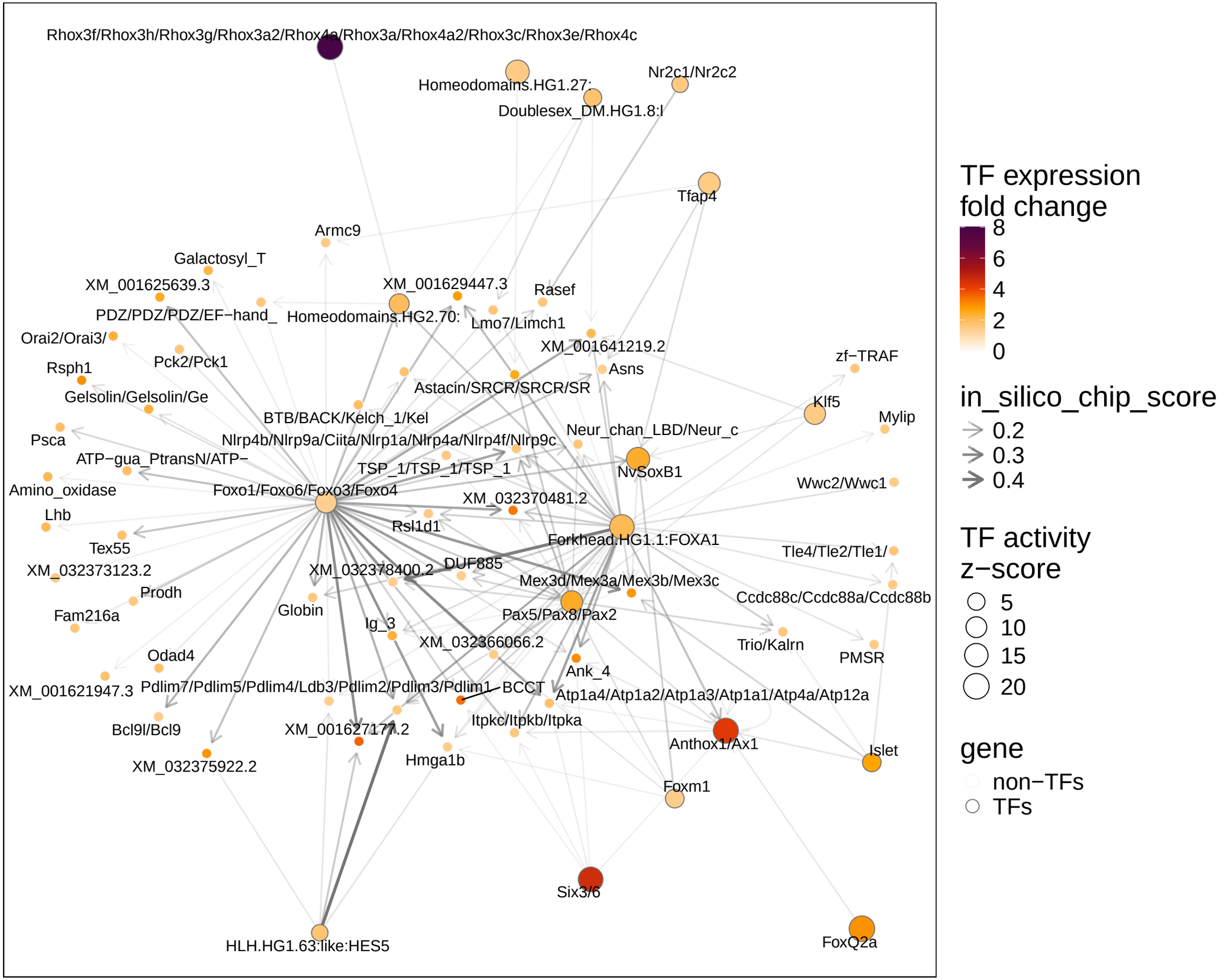
ectoderm module 2



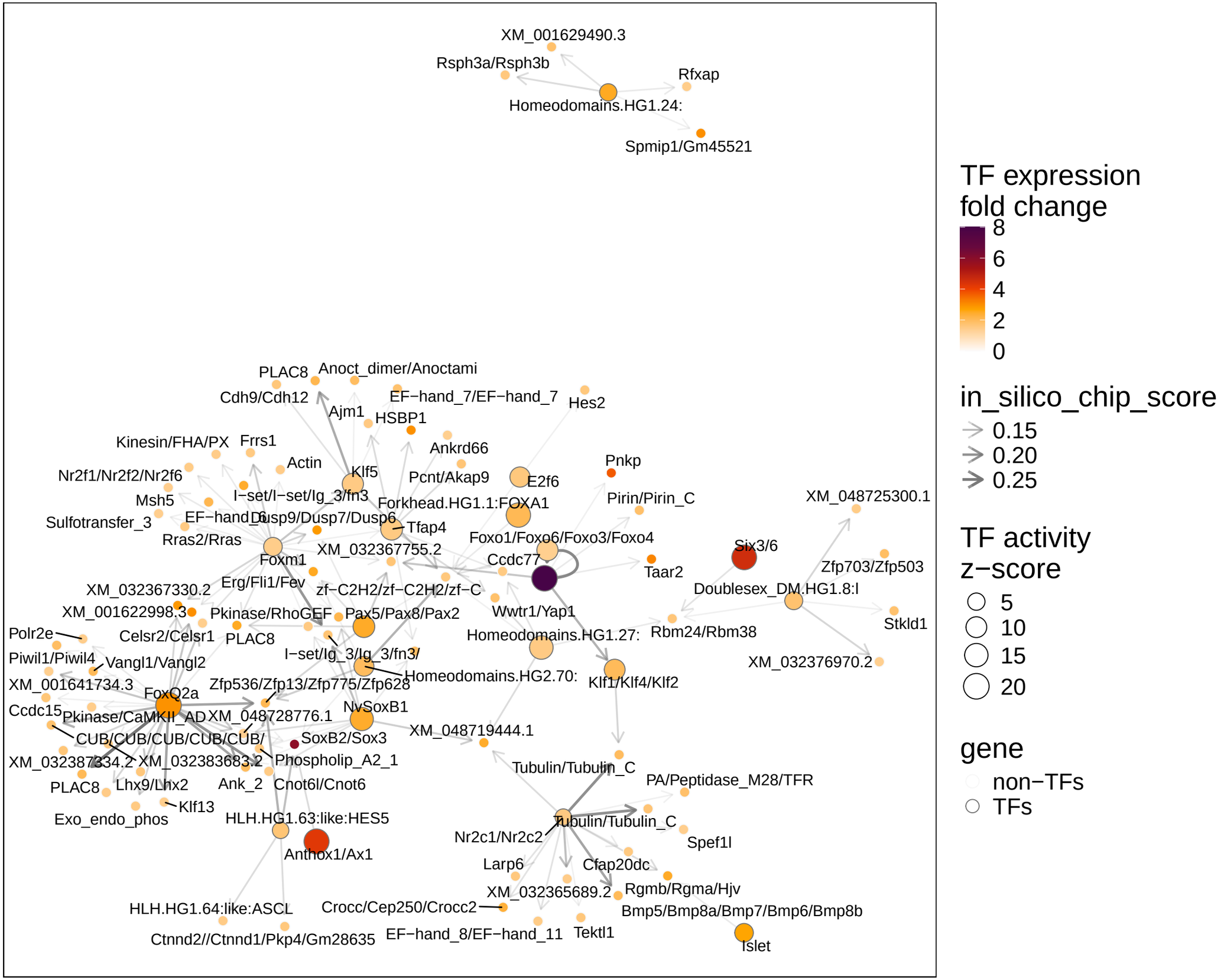
ectoderm module 3



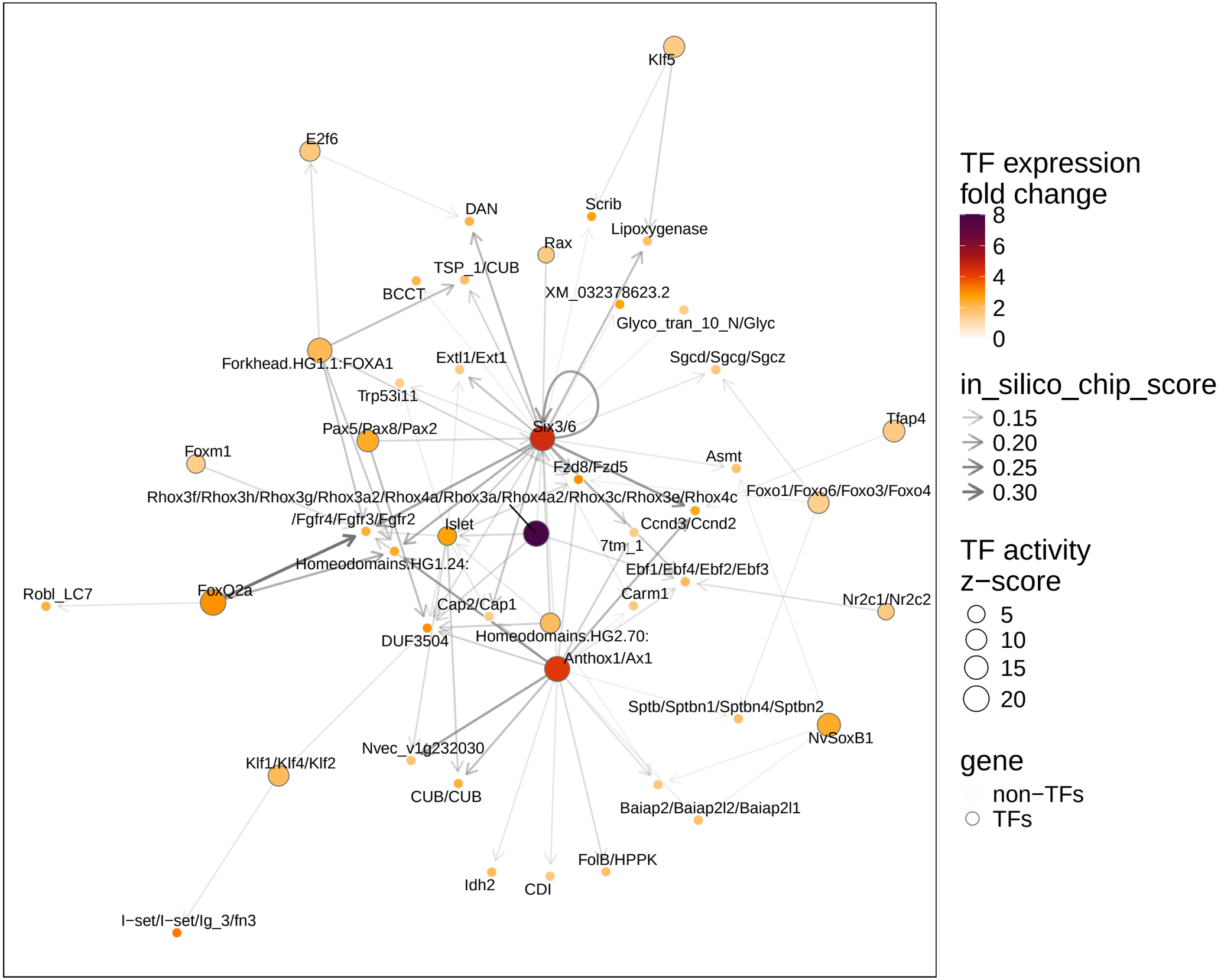
ecto aboral module 1



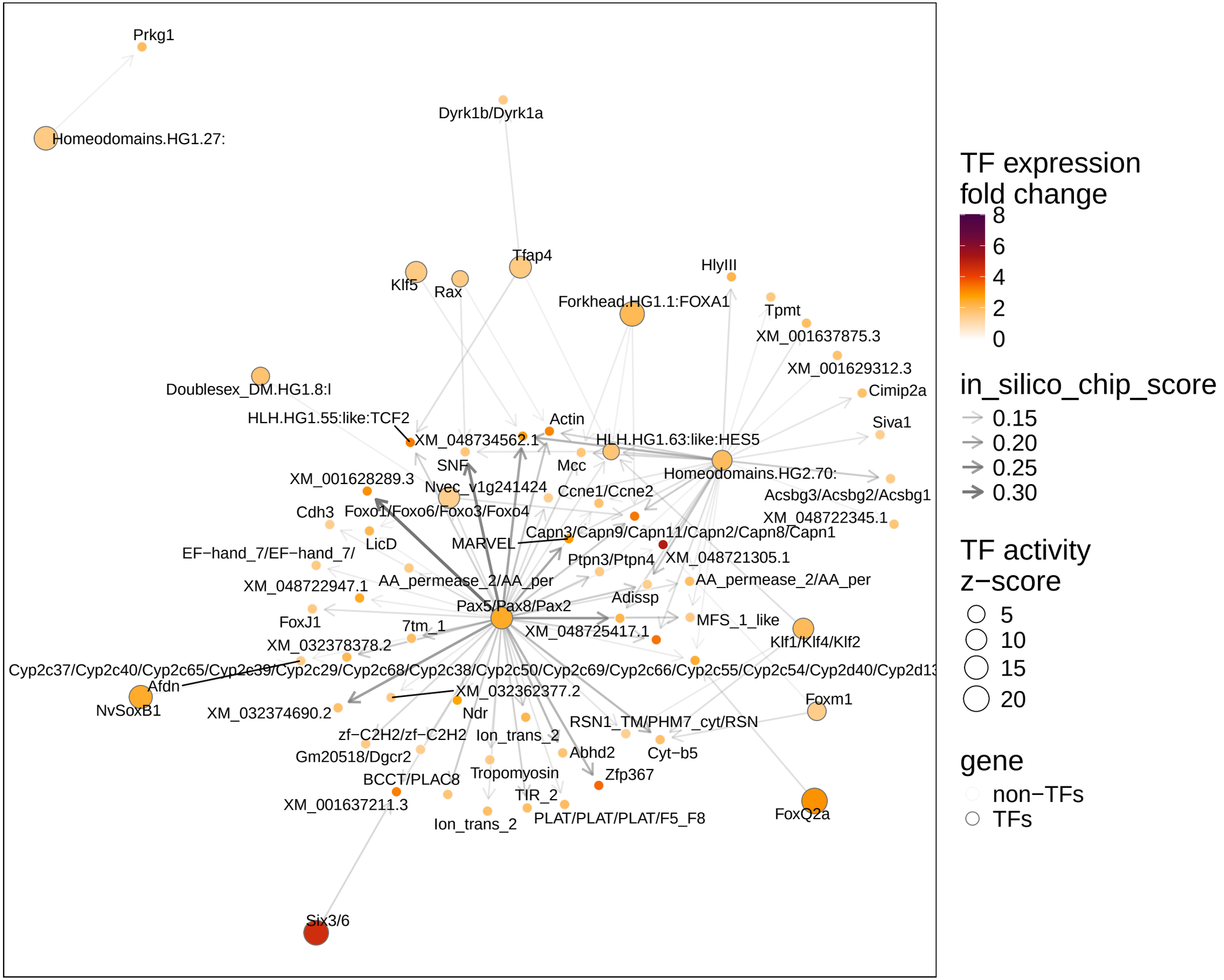
ecto aboral module 2



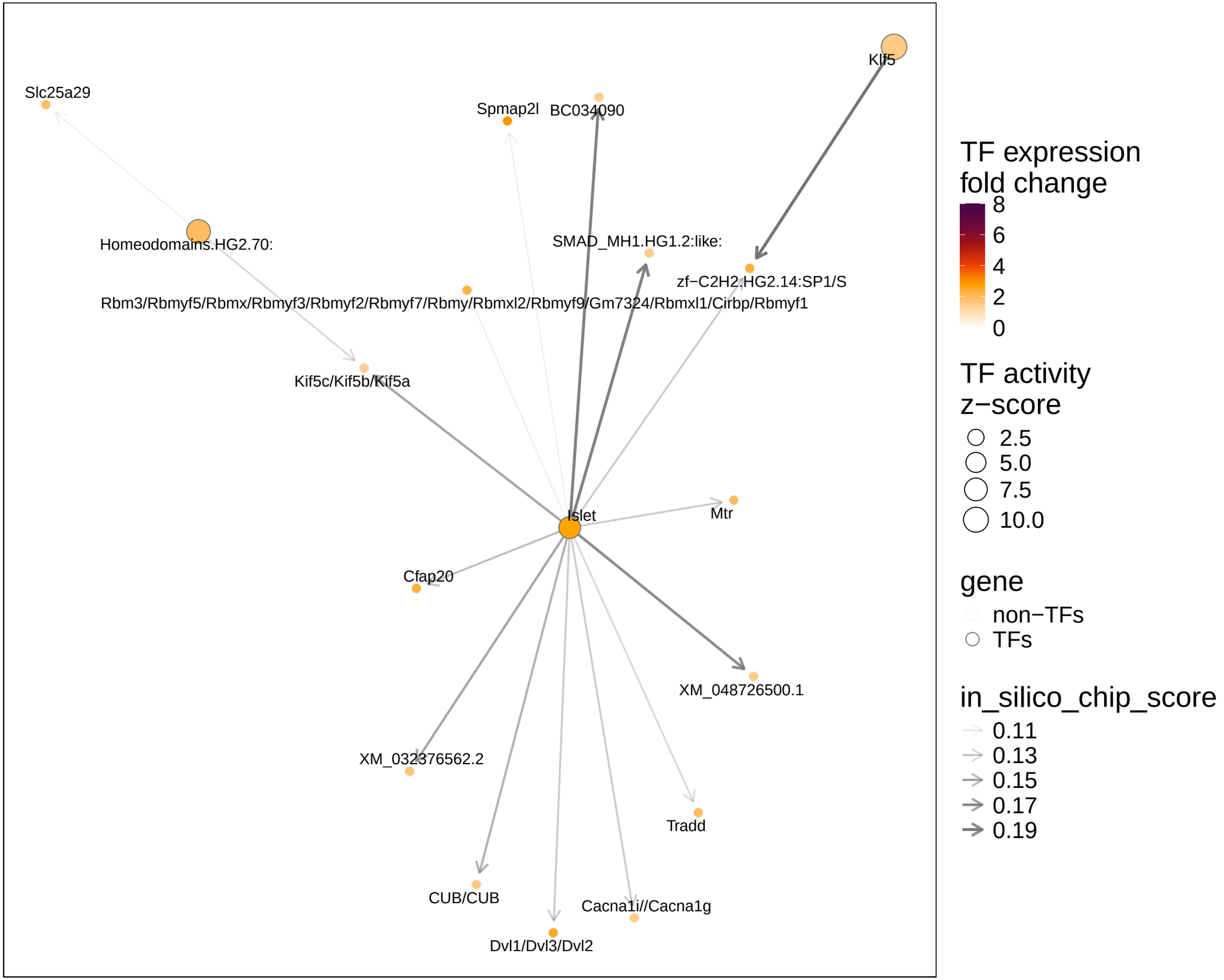
ecto aboral module 3



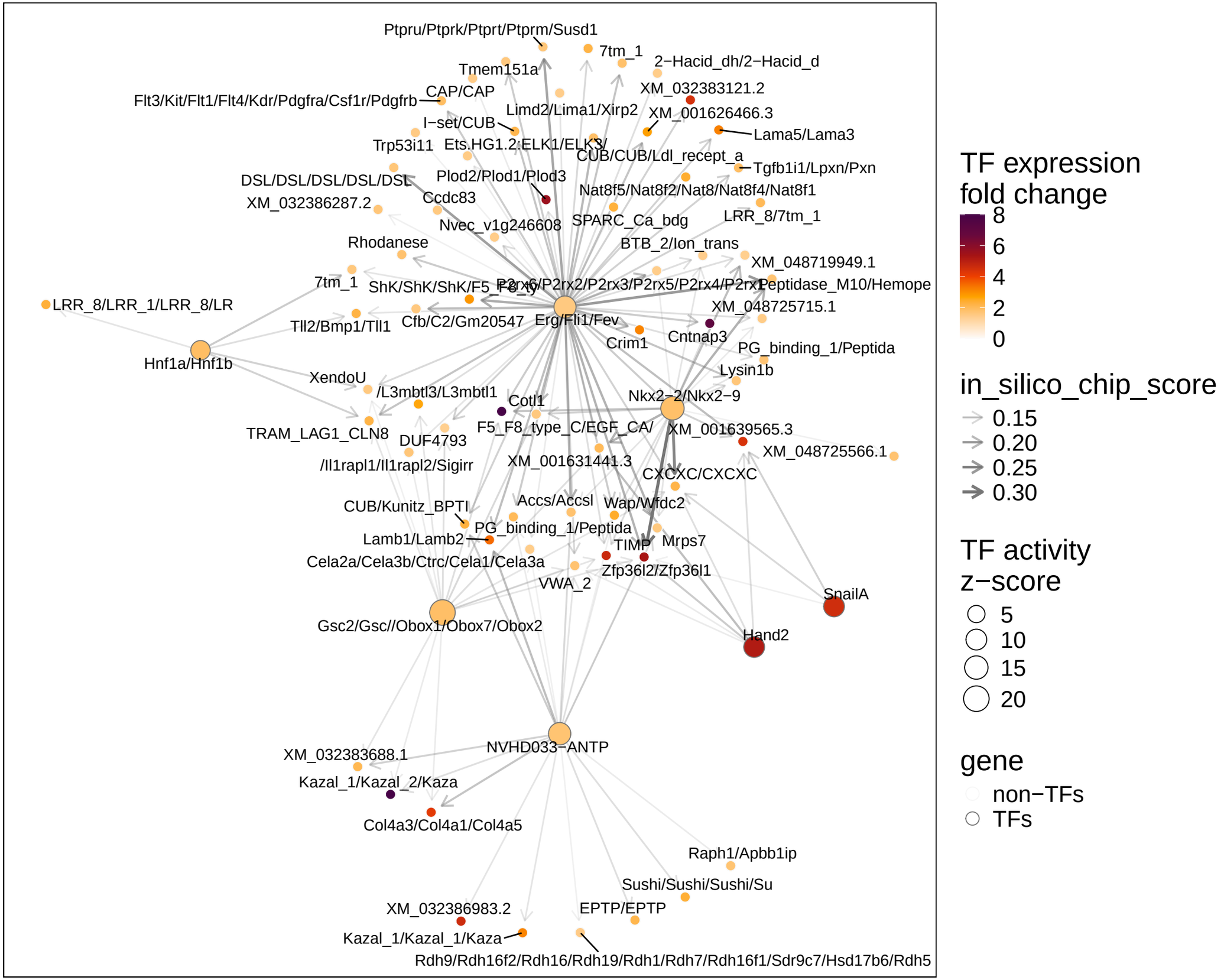
ecto aboral module 4



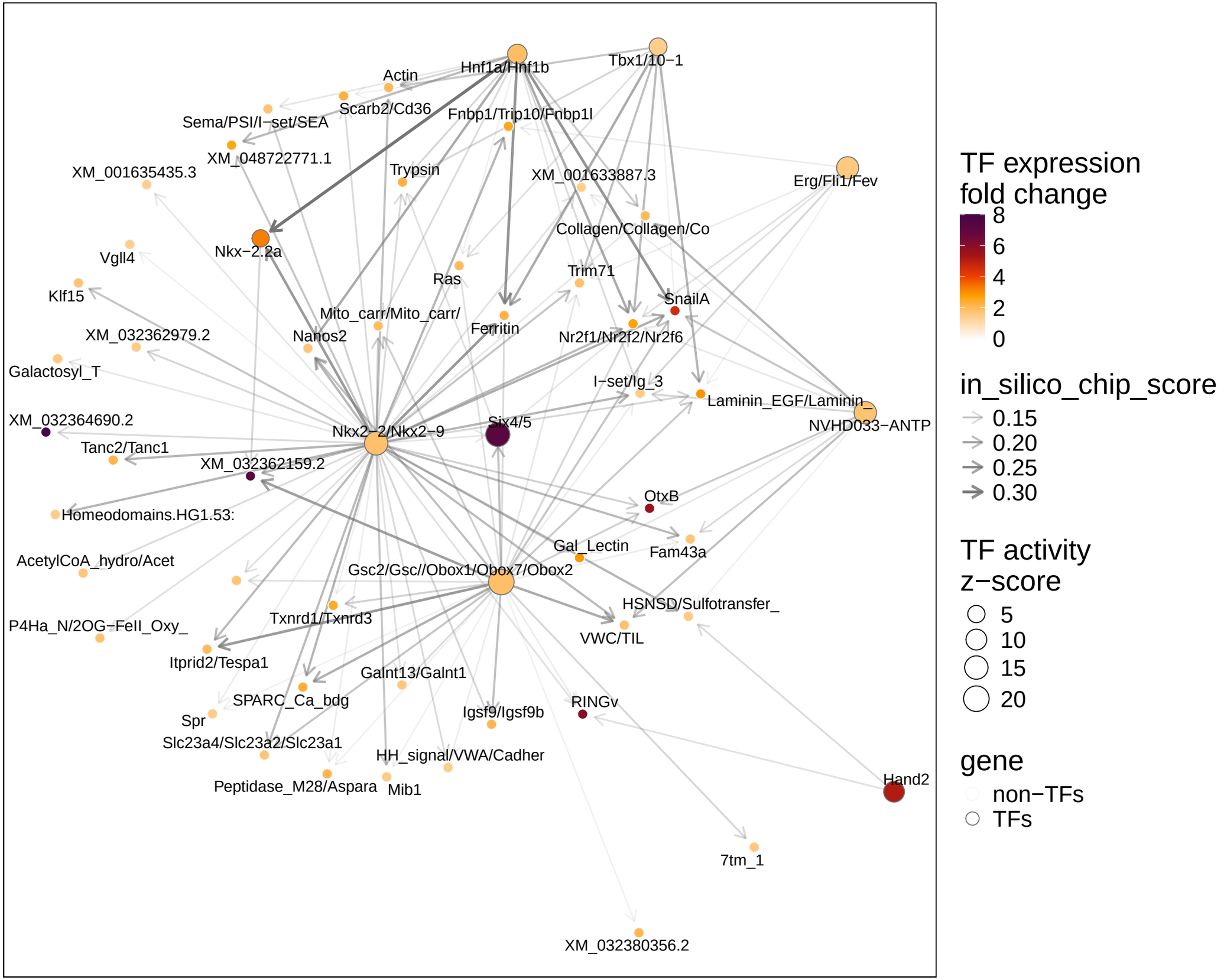
ecto aboral module 5



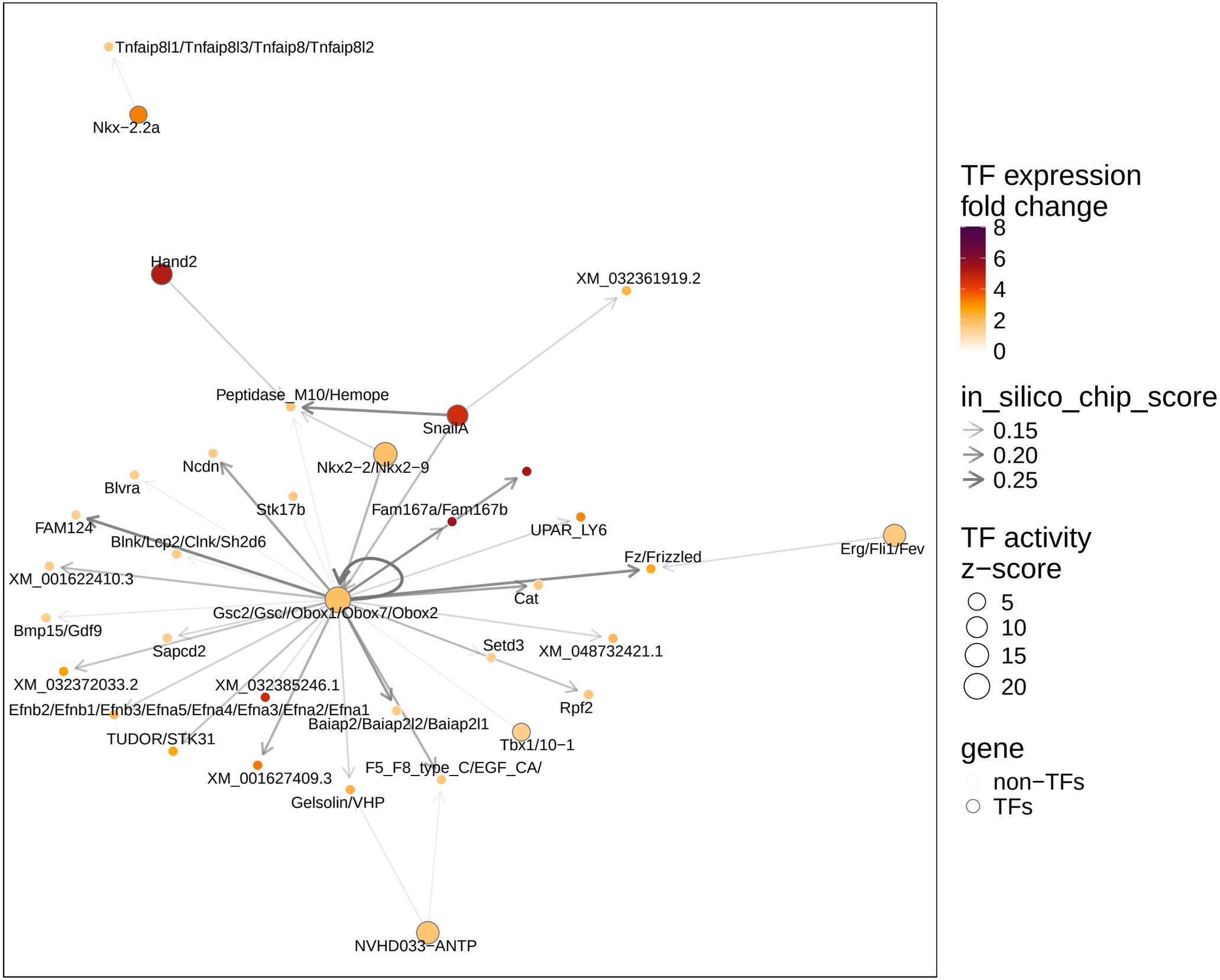
EMS module 1


Ptpru/Ptprk/Ptprt/Ptprm/Susd1
7tm_1
2−Hacid_dh/2−Hacid_d
Tmem151a
XM_032383121.2
Flt3/Kit/Flt1/Flt4/Kdr/Pdgfra/Csf1r/Pdgfrb
CAP/CAP
Limd2/Lima1/Xirp2
XM_001626466.3
I−set/CUB
Lama5/Lama3
Trp53i11
Ets.HG1.2:ELK1/ELK3/
CUB/CUB/Ldl_recept_a
Tgfb1i1/Lpxn/Pxn
DSL/DSL/DSL/DSL/DSL
Plod2/Plod1/Plod3
Nat8f5/Nat8f2/Nat8/Nat8f4/Nat8f1
XM_032386287.2
Ccdc83
Nvec_v1g246608
SPARC_Ca_bdg
LRR_8/7tm_1
Rhodanese
BTB_2/Ion_trans
XM_048719949.1
7tm_1
ShK/ShK/ShK/F5_F8_ty
P2rx6/P2rx2/P2rx3/P2rx5/P2rx4/P2rx1
Peptidase_M10/Hemope
LRR_8/LRR_1/LRR_8/LR
XM_048725715.1
Tll2/Bmp1/Tll1
Cfb/C2/Gm20547
Erg/Fli1/Fev
Cntnap3
Crim1
PG_binding_1/Peptida
Hnf1a/Hnf1b
Lysin1b
XendoU
/L3mbtl3/L3mbtl1
Cotl1
Nkx2−2/Nkx2−9
TRAM_LAG1_CLN8
DUF4793
F5_F8_type_C/EGF_CA/
XM_001639565.3
XM_048725566.1
/Il1rapl1/Il1rapl2/Sigirr
XM_001631441.3
CXCXC/CXCXC
CUB/Kunitz_BPTI
Accs/Accsl
Wap/Wfdc2
PG_binding_1/Peptida
Lamb1/Lamb2
TIMP
Mrps7
Cela2a/Cela3b/Ctrc/Cela1/Cela3a
Zfp36l2/Zfp36l1
VWA_2
SnailA
Gsc2/Gsc//Obox1/Obox7/Obox2
Hand2
NVHD033−ANTP
XM_032383688.1
Kazal_1/Kazal_2/Kaza
Col4a3/Col4a1/Col4a5
Raph1/Apbb1ip
Sushi/Sushi/Sushi/Su
XM_032386983.2
EPTP/EPTP
Kazal_1/Kazal_1/Kaza
Rdh9/Rdh16f2/Rdh16/Rdh19/Rdh1/Rdh7/Rdh16f1/Sdr9c7/Hsd17b6/Rdh5
TF expression fold change
8
6
4
2
0
in_silico_chip_score
0.15
0.20
0.25
0.30
TF activity z−score
5
10
15
20
gene
non−TFs
TFs

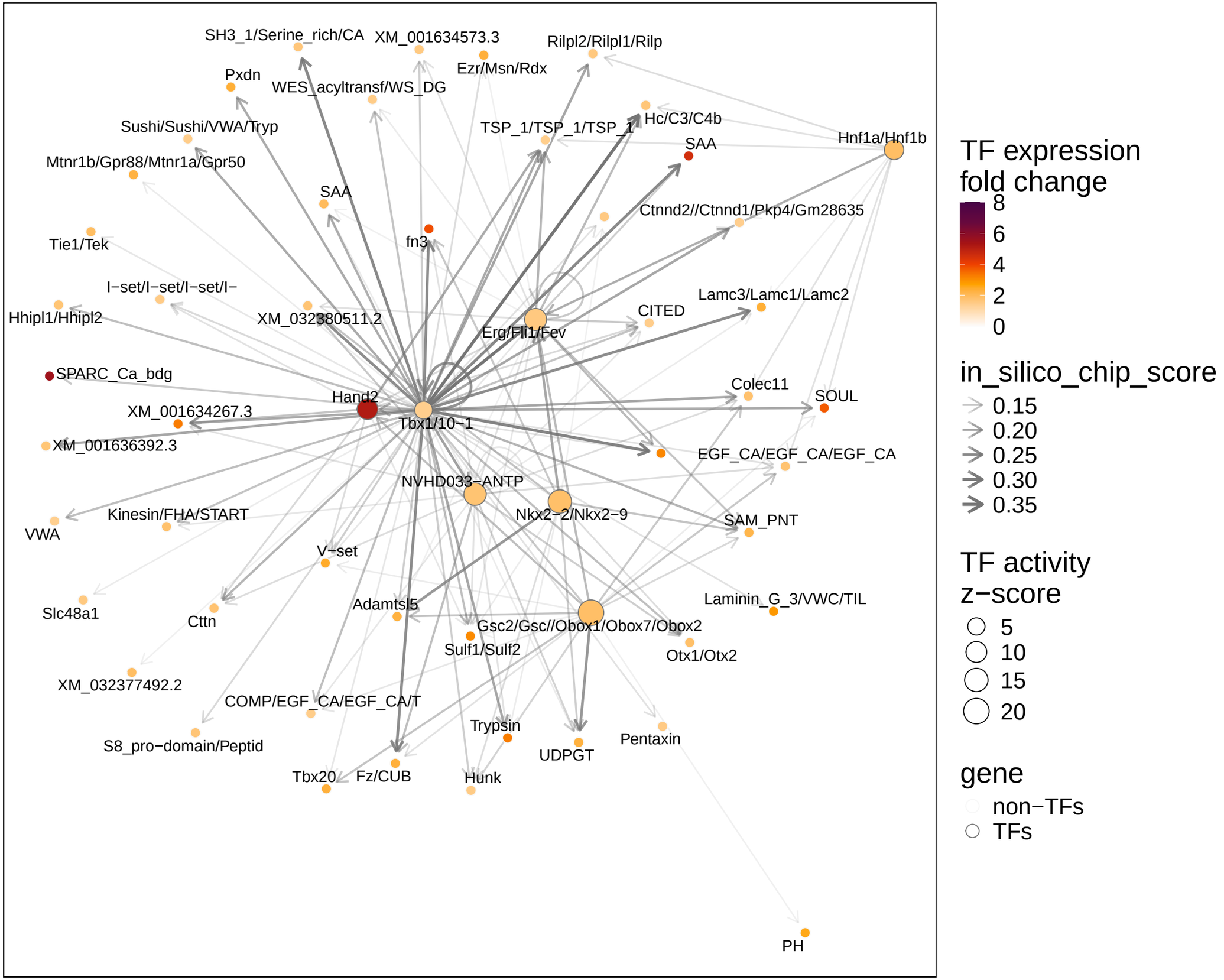
EMS module 2


Hnf1a/Hnf1b
Tbx1/10−1
Actin
Scarb2/Cd36
Sema/PSI/I−set/SEA
Fnbp1/Trip10/Fnbp1l
XM_048722771.1
XM_001635435.3
Trypsin
XM_001633887.3
Erg/Fli1/Fev
Collagen/Collagen/Co
Nkx−2.2a
Vgll4
Ras
Trim71
Klf15
SnailA
Mito_carr/Mito_carr/
Ferritin
XM_032362979.2
Nanos2
Nr2f1/Nr2f2/Nr2f6
Galactosyl_T
I−set/Ig_3
Laminin_EGF/Laminin_
XM_032364690.2
Six4/5
NVHD033−ANTP
Nkx2−2/Nkx2−9
Tanc2/Tanc1
XM_032362159.2
OtxB
Homeodomains.HG1.53:
Gal_Lectin
Fam43a
AcetylCoA_hydro/Acet
Gsc2/Gsc//Obox1/Obox7/Obox2
HSNSD/Sulfotransfer_
Txnrd1/Txnrd3
P4Ha_N/2OG−FeII_Oxy_
VWC/TIL
Itprid2/Tespa1
Galnt13/Galnt1
SPARC_Ca_bdg
RINGv
Spr
Igsf9/Igsf9b
Slc23a4/Slc23a2/Slc23a1
HH_signal/VWA/Cadher
Hand2
Peptidase_M28/Aspara
Mib1
7tm_1
XM_032380356.2
TF expression fold change
8
6
4
2
0
in_silico_chip_score
0.15
0.20
0.25
0.30
TF activity z−score
5
10
15
20
gene
non−TFs
TFs

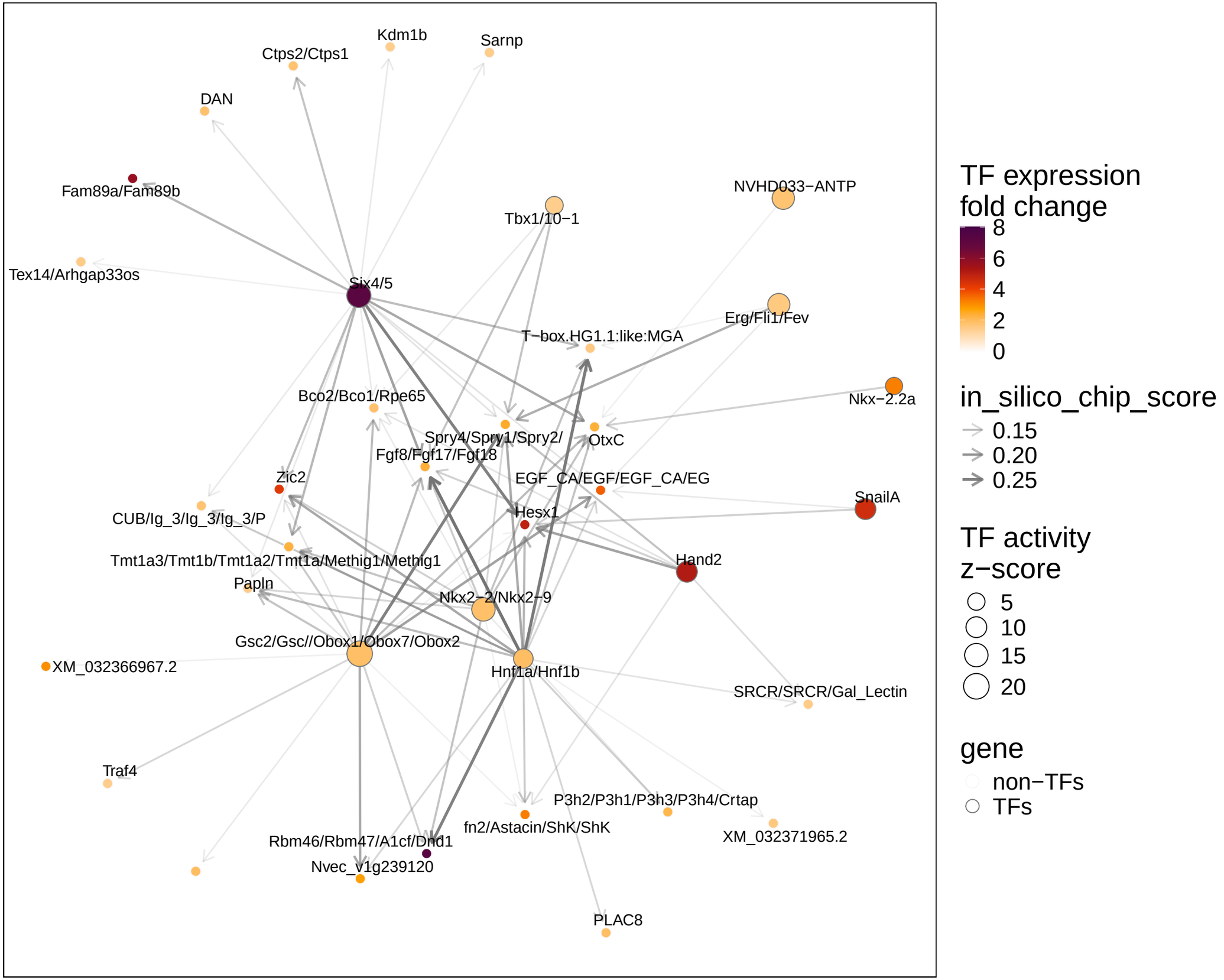
EMS module 3


Tnfaip8l1/Tnfaip8l3/Tnfaip8/Tnfaip8l2
Nkx−2.2a
Hand2
XM_032361919.2
Peptidase_M10/Hemope
SnailA
Ncdn
Nkx2−2/Nkx2−9
Blvra
Stk17b
Fam167a/Fam167b
FAM124
Blnk/Lcp2/Clnk/Sh2d6
UPAR_LY6
Erg/Fli1/Fev
Fz/Frizzled
XM_001622410.3
Cat
Gsc2/Gsc//Obox1/Obox7/Obox2
Bmp15/Gdf9
Sapcd2
Setd3
XM_048732421.1
XM_032372033.2
XM_032385246.1
Efnb2/Efnb1/Efnb3/Efna5/Efna4/Efna3/Efna2/Efna1
Rpf2
Baiap2/Baiap2l2/Baiap2l1
TUDOR/STK31
Tbx1/10−1
F5_F8_type_C/EGF_CA/
XM_001627409.3
Gelsolin/VHP
NVHD033−ANTP
TF expression fold change
8
6
4
2
0
in_silico_chip_score
0.15
0.20
0.25
TF activity z−score
5
10
15
20
gene
non−TFs
TFs

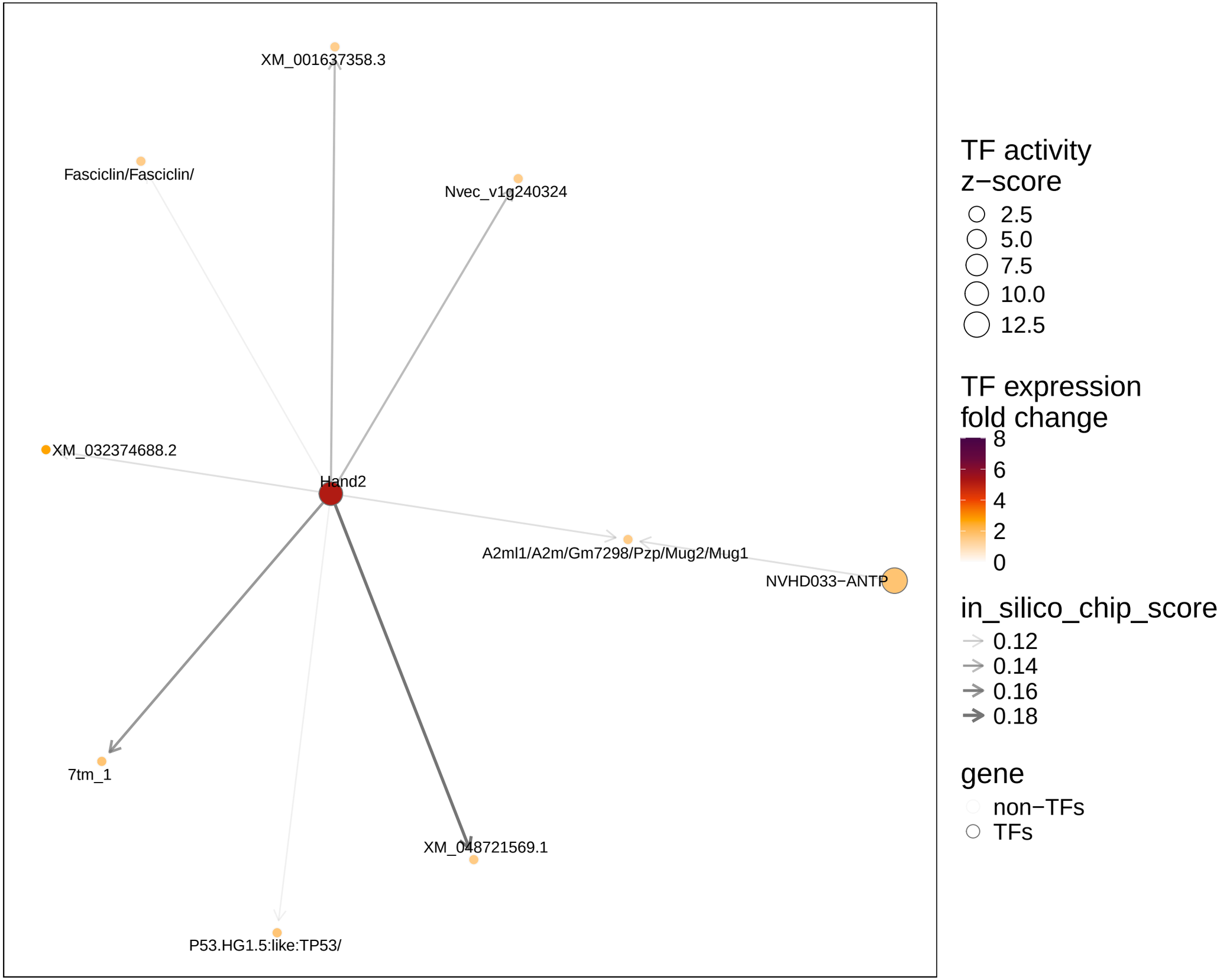
EMS module 4


SH3_1/Serine_rich/CA
XM_001634573.3
Rilpl2/Rilpl1/Rilp
Ezr/Msn/Rdx
Pxdn
WES_acyltransf/WS_DG
Hc/C3/C4b
Sushi/Sushi/VWA/Tryp
TSP_1/TSP_1/TSP_1
SAA
Hnf1a/Hnf1b
Mtnr1b/Gpr88/Mtnr1a/Gpr50
SAA
Ctnnd2//Ctnnd1/Pkp4/Gm28635
fn3
Tie1/Tek
I−set/I−set/I−set/I−
Lamc3/Lamc1/Lamc2
Hhipl1/Hhipl2
XM_032380511.2
CITED
Erg/Fli1/Fev
SPARC_Ca_bdg
Colec11
SOUL
Hand2
XM_001634267.3
Tbx1/10−1
XM_001636392.3
EGF_CA/EGF_CA/EGF_CA
NVHD033−ANTP
Kinesin/FHA/START
Nkx2−2/Nkx2−9
SAM_PNT
VWA
V−set
Laminin_G_3/VWC/TIL
Slc48a1
Adamtsl5
Cttn
Gsc2/Gsc//Obox1/Obox7/Obox2
Sulf1/Sulf2
Otx1/Otx2
XM_032377492.2
COMP/EGF_CA/EGF_CA/T
Trypsin
Pentaxin
S8_pro−domain/Peptid
UDPGT
Tbx20
Fz/CUB
Hunk
PH
TF expression fold change
8
6
4
2
0
in_silico_chip_score
0.15
0.20
0.25
0.30
0.35
TF activity z−score
5
10
15
20
gene
non−TFs
TFs

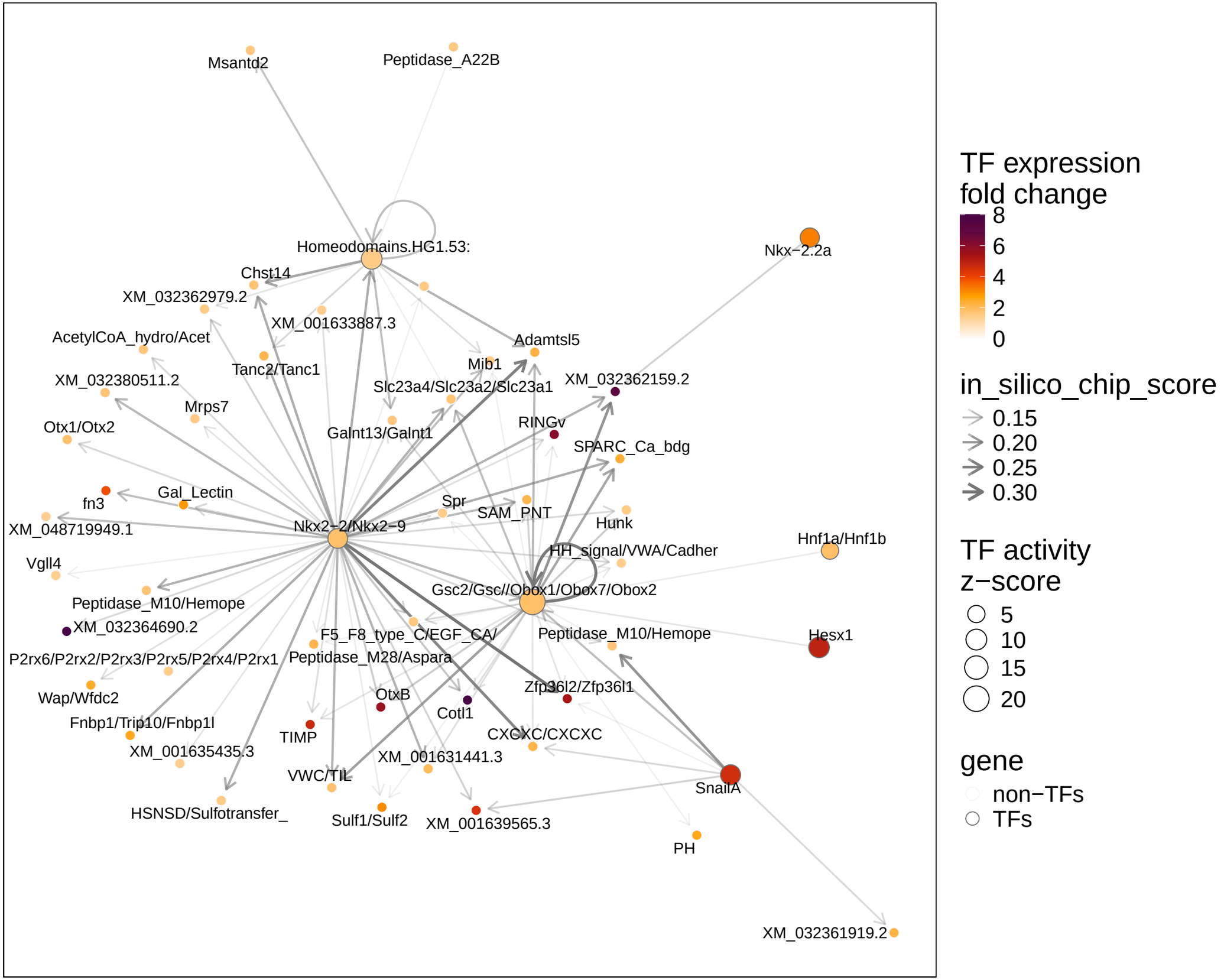
EMS module 5


Kdm1b
Sarnp
Ctps2/Ctps1
DAN
Fam89a/Fam89b
NVHD033−ANTP
Tbx1/10−1
Tex14/Arhgap33os
Six4/5
Erg/Fli1/Fev
T−box.HG1.1:like:MGA
Nkx−2.2a
Bco2/Bco1/Rpe65
Spry4/Spry1/Spry2/
Fgf8/Fgf17/Fgf18
OtxC
Zic2
EGF_CA/EGF/EGF_CA/EG
SnailA
CUB/Ig_3/Ig_3/Ig_3/P
Hesx1
Tmt1a3/Tmt1b/Tmt1a2/Tmt1a/Methig1/Methig1
Hand2
Papln
Nkx2−2/Nkx2−9
Gsc2/Gsc//Obox1/Obox7/Obox2
XM_032366967.2
Hnf1a/Hnf1b
SRCR/SRCR/Gal_Lectin
Traf4
P3h2/P3h1/P3h3/P3h4/Crtap
fn2/Astacin/ShK/ShK
XM_032371965.2
Rbm46/Rbm47/A1cf/Dnd1
Nvec_v1g239120
PLAC8
TF expression fold change
8
6
4
2
0
in_silico_chip_score
0.15
0.20
0.25
TF activity z−score
5
10
15
20
gene
non−TFs
TFs

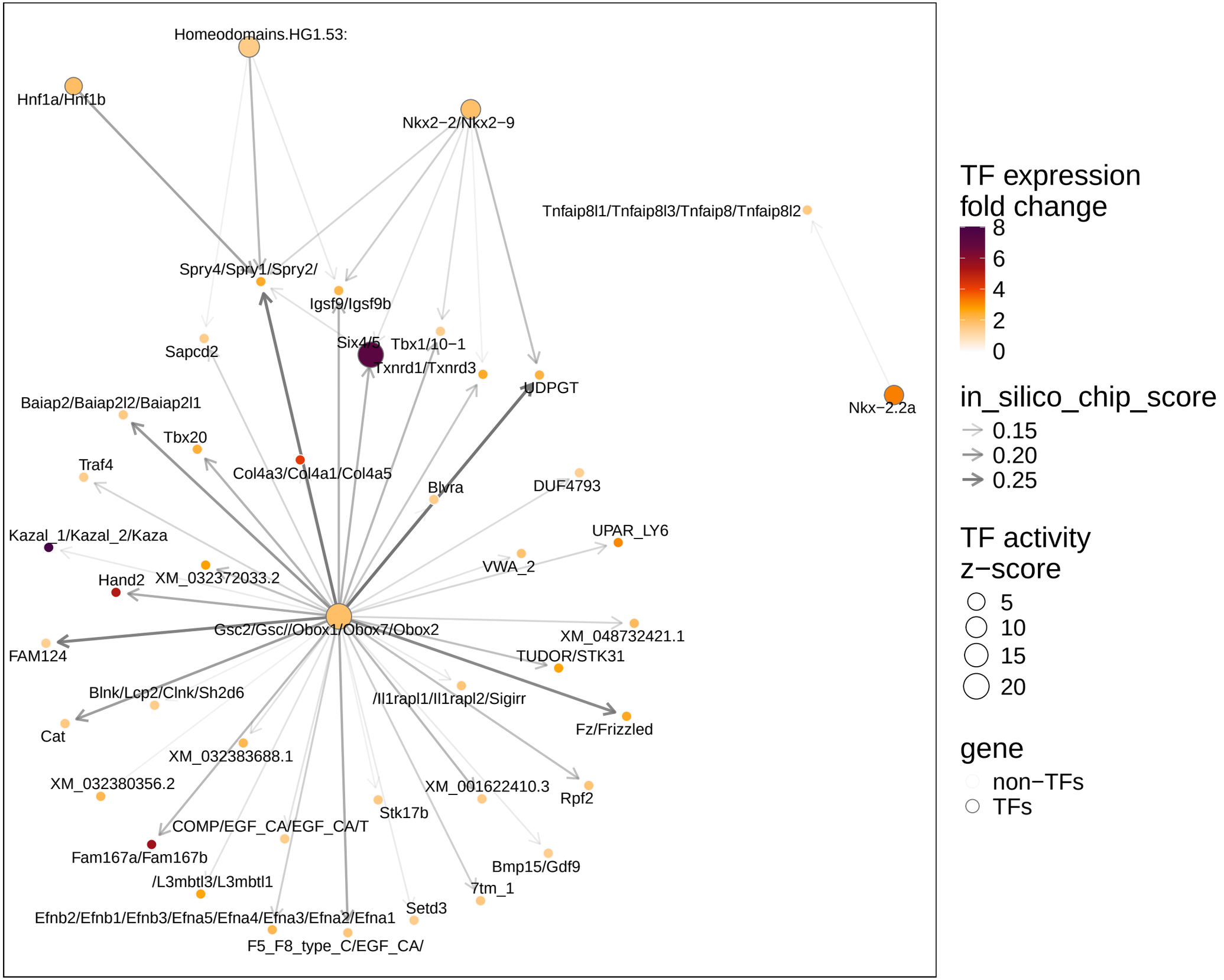
EMS module 6


XM_001637358.3
Fasciclin/Fasciclin/
Nvec_v1g240324
XM_032374688.2
Hand2
A2ml1/A2m/Gm7298/Pzp/Mug2/Mug1
NVHD033−ANTP
7tm_1
XM_048721569.1
P53.HG1.5:like:TP53/
TF activity z−score
2.5
5.0
7.5
10.0
12.5
TF expression fold change
8
6
4
2
0
in_silico_chip_score
0.12
0.14
0.16
0.18
gene
non−TFs
TFs

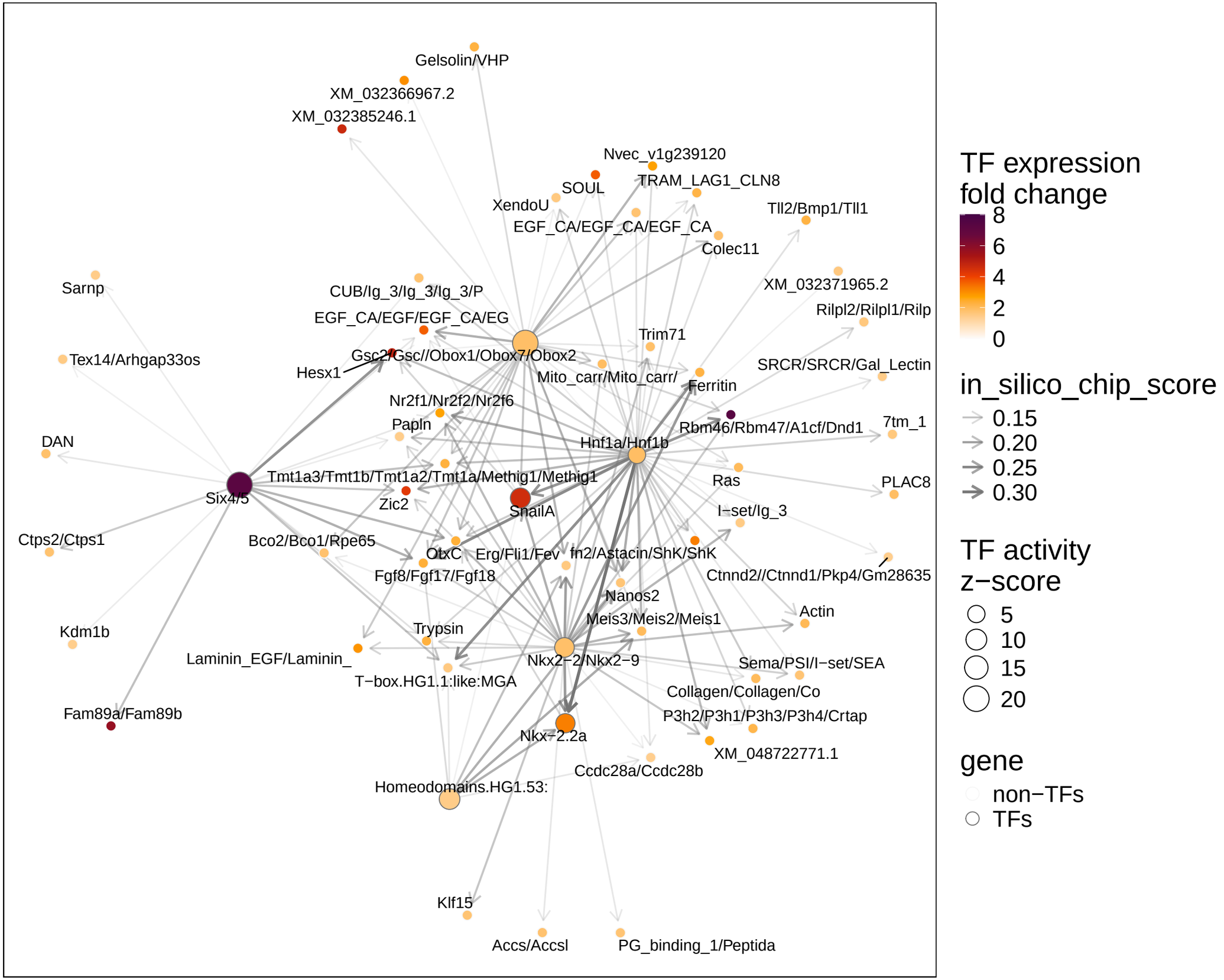
EMS ecto boundary module 1



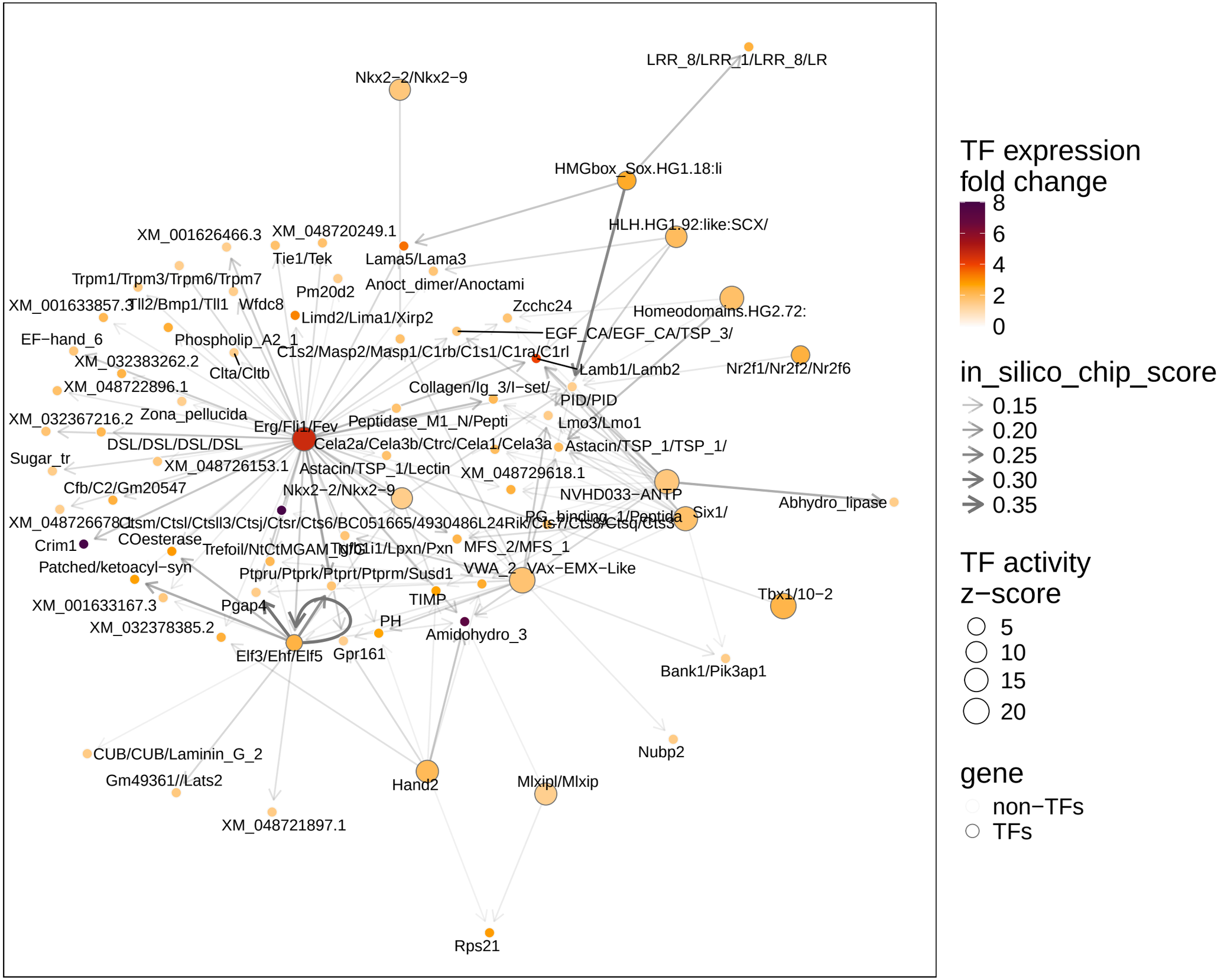
EMS ecto boundary module 2



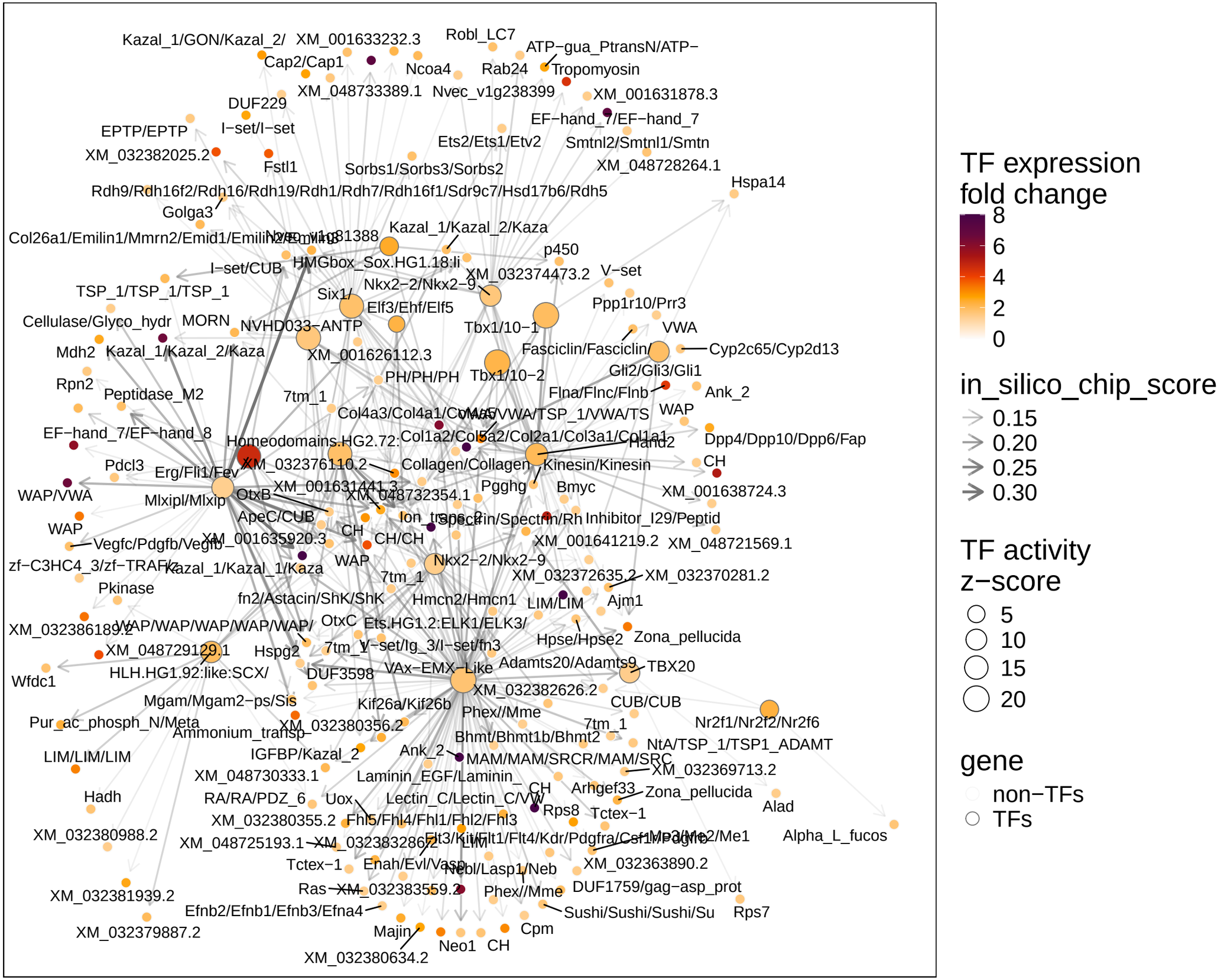
EMS ecto boundary module 3



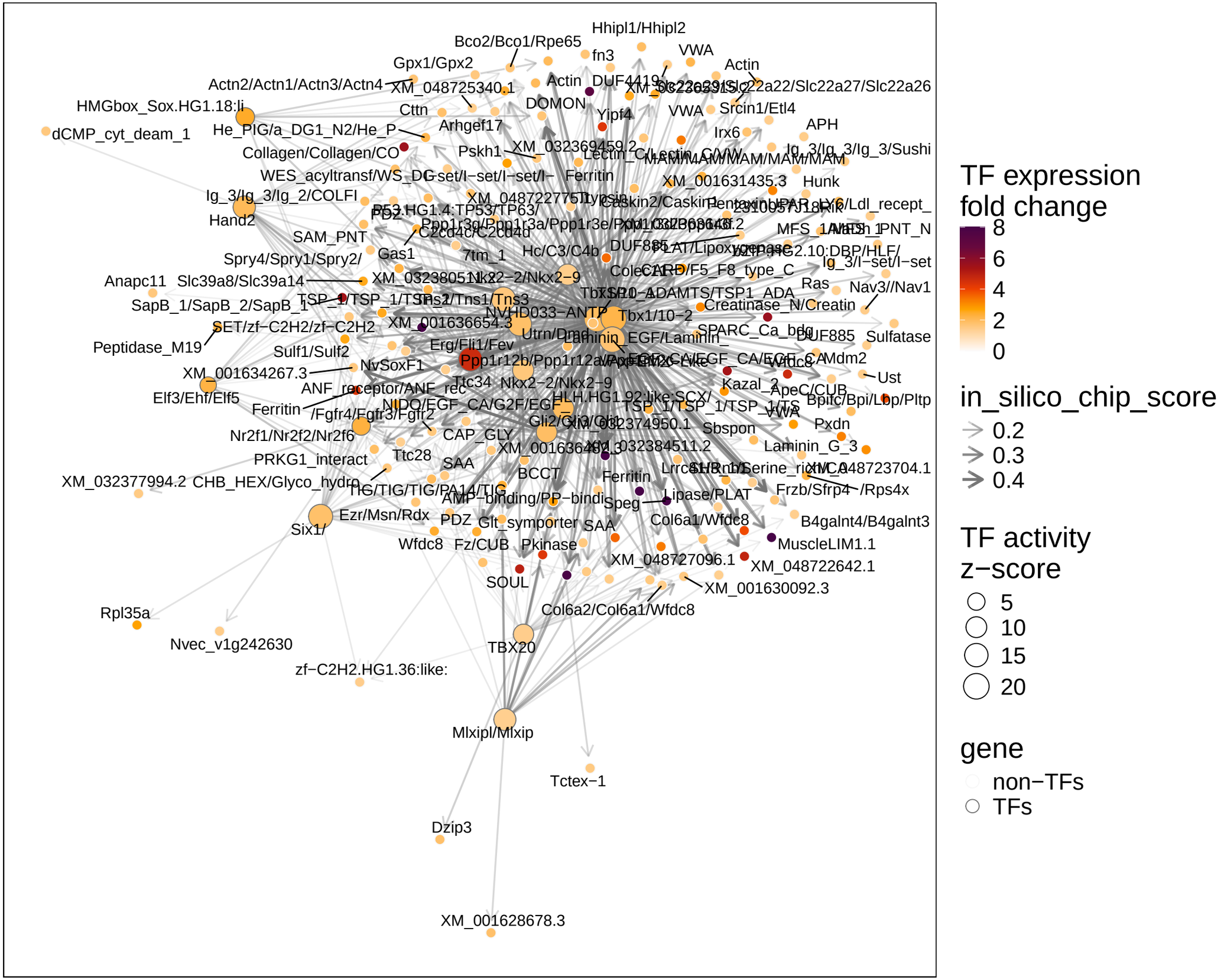
gastro circular muscle 1 module 1



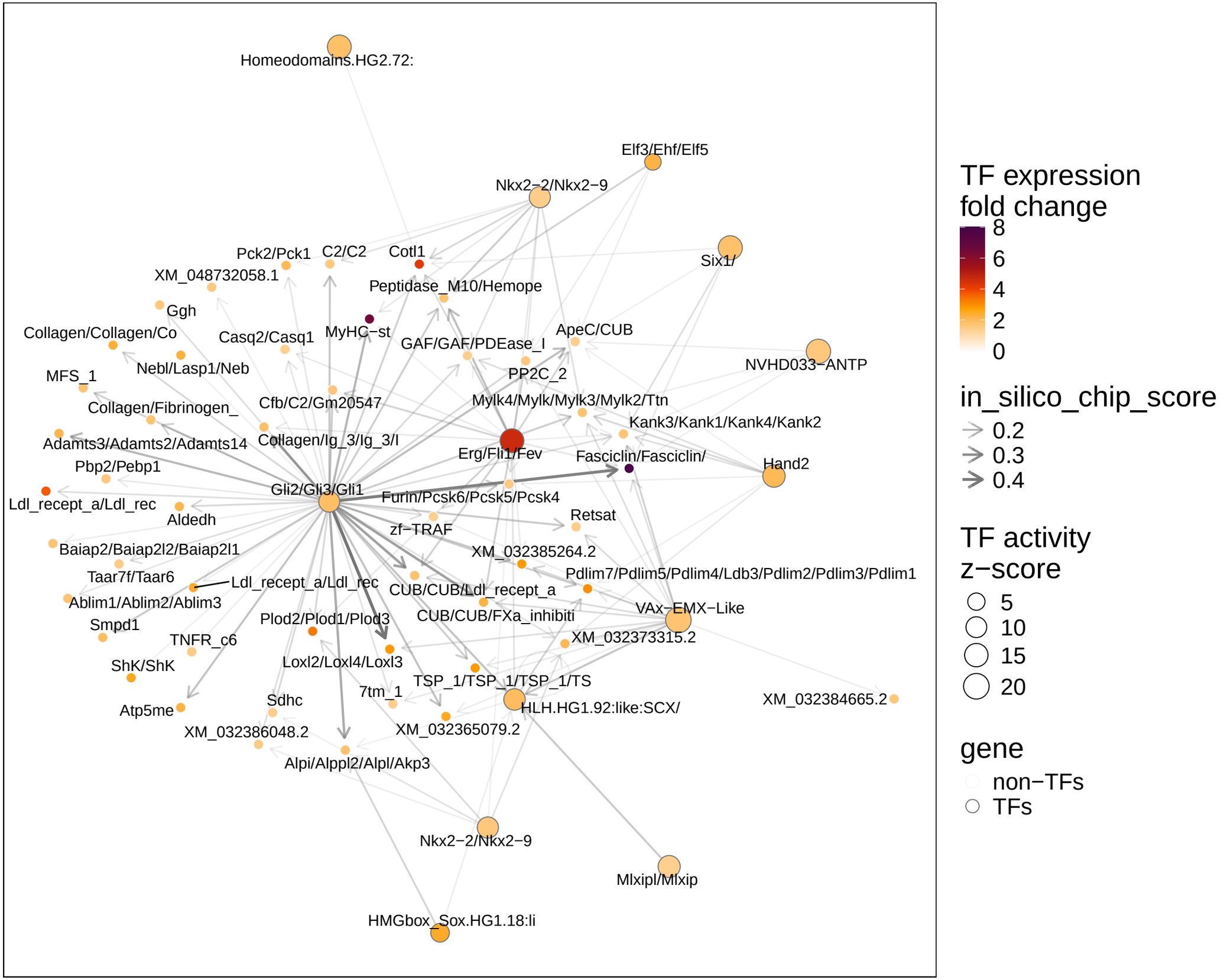
gastro circular muscle 1 module 2



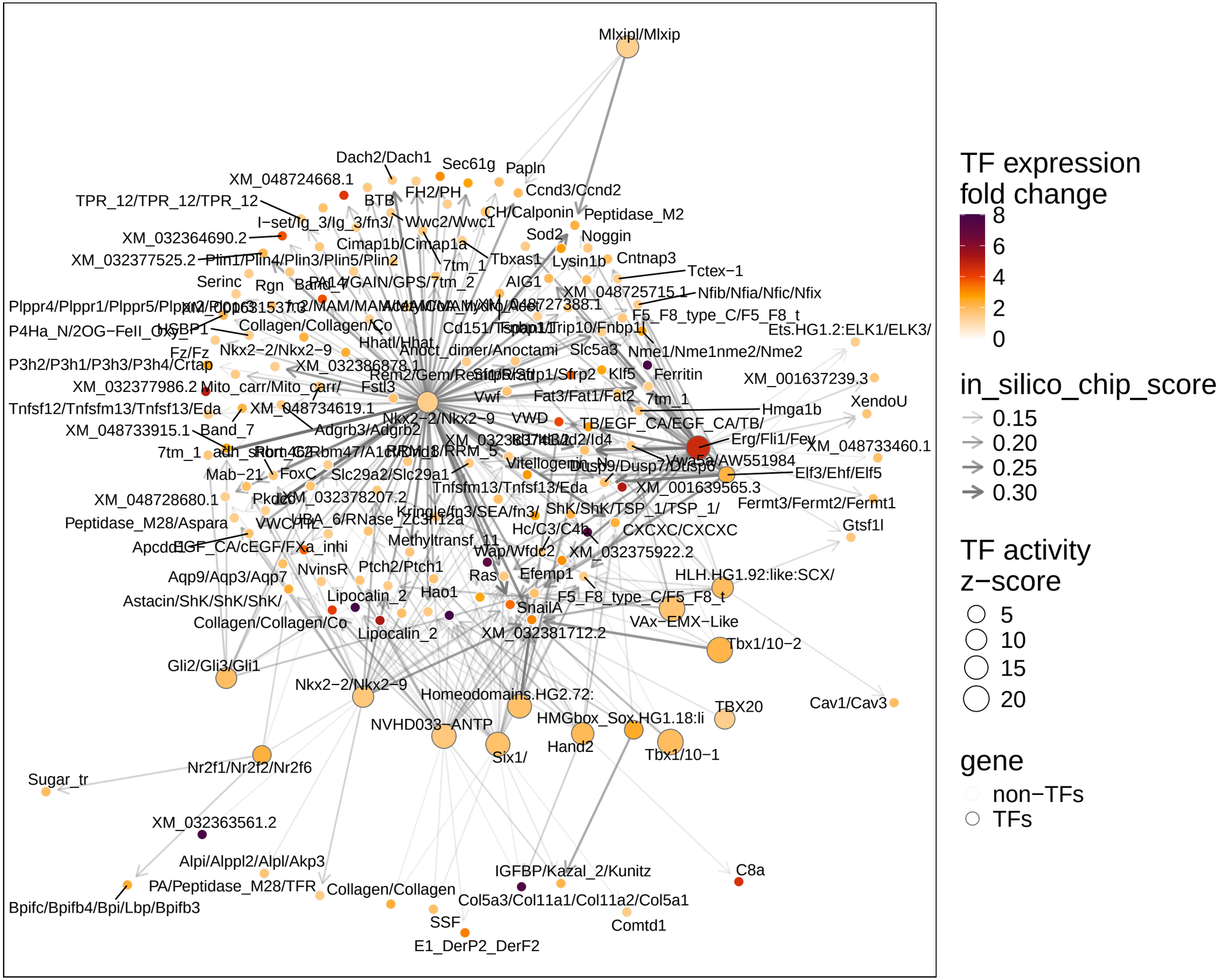
gastro circular muscle 1 module 3



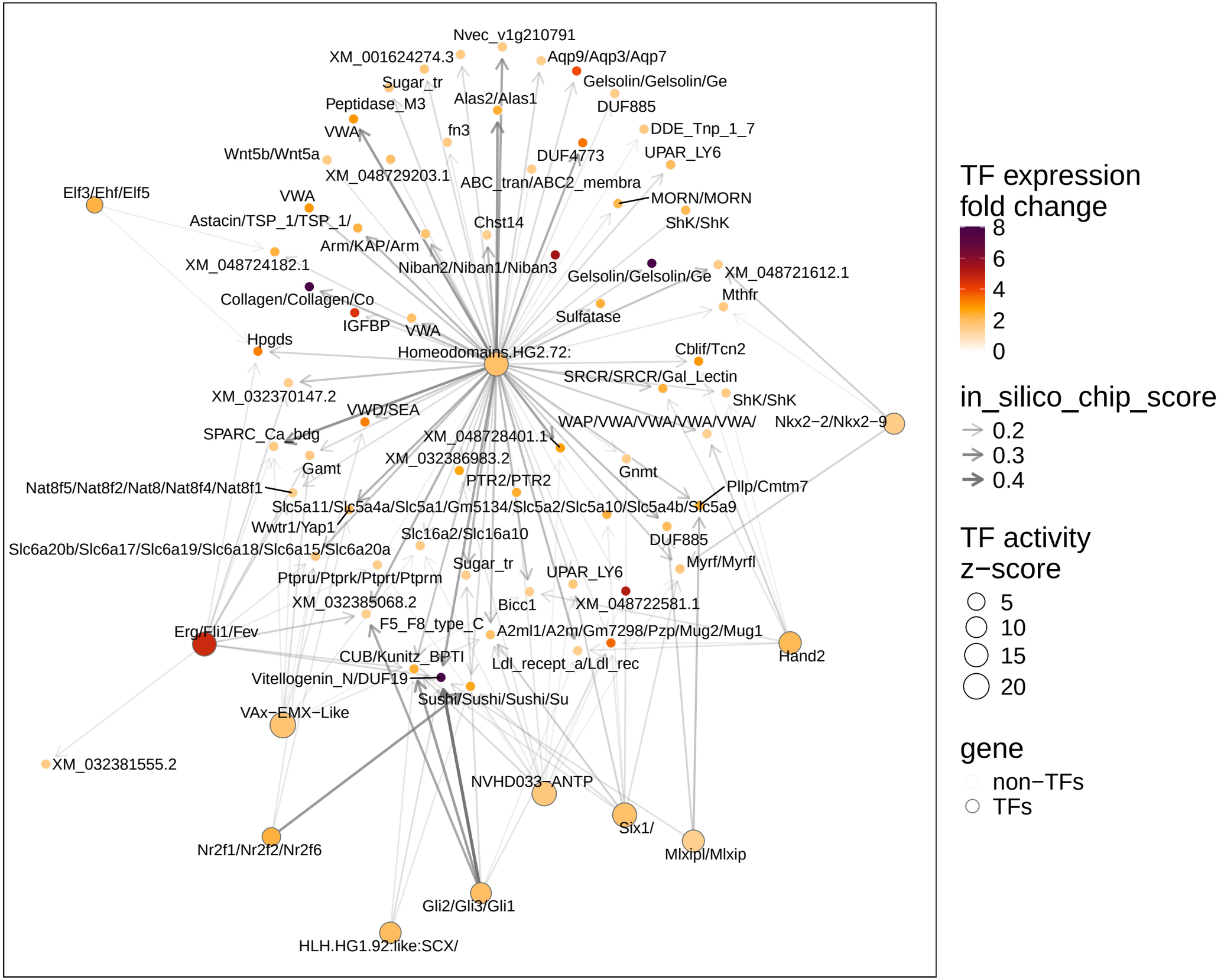
gastro circular muscle 1 module 4



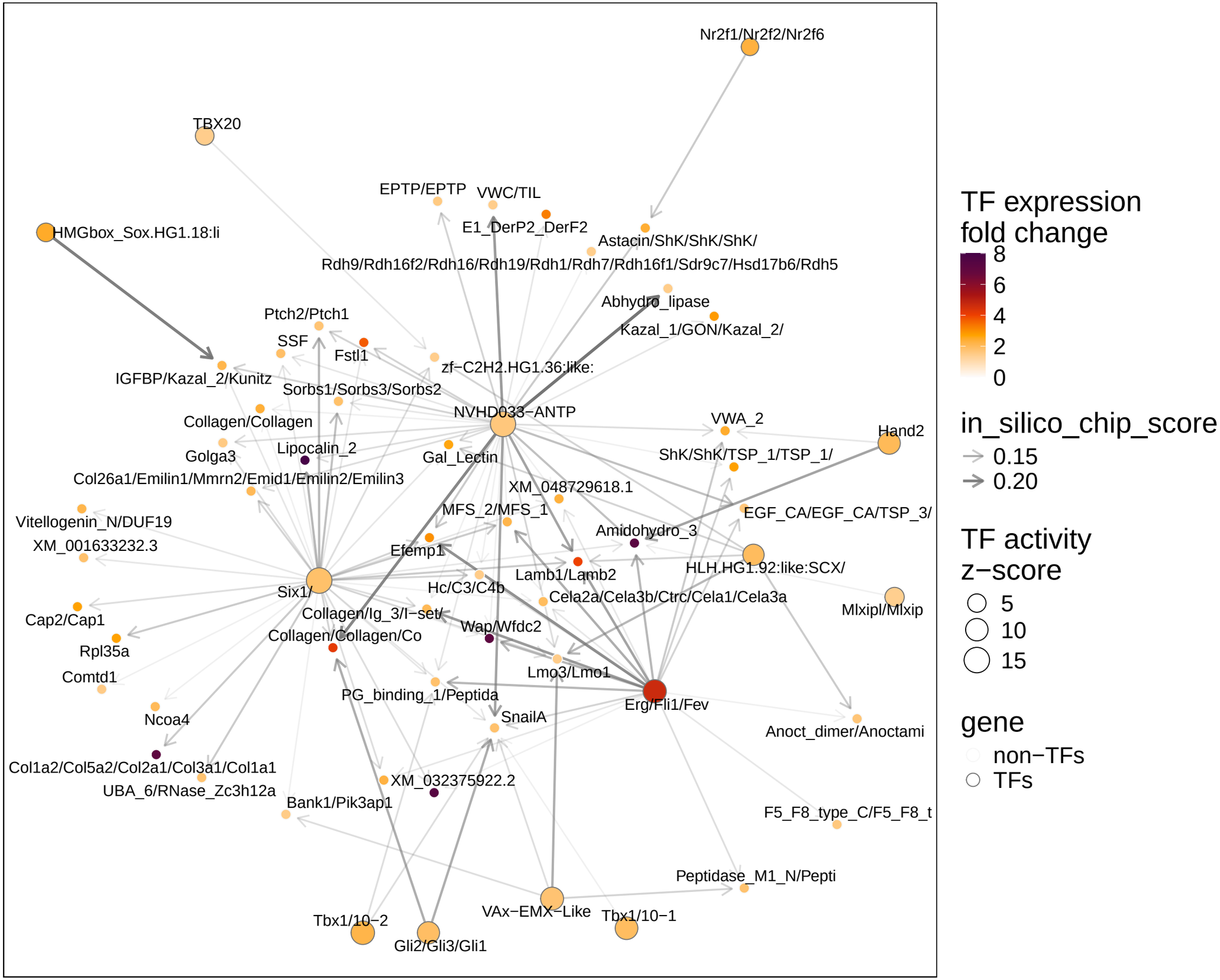
gastro circular muscle 1 module 5



gastro circular muscle 1 module 6



gastro circular muscle 2 module 1



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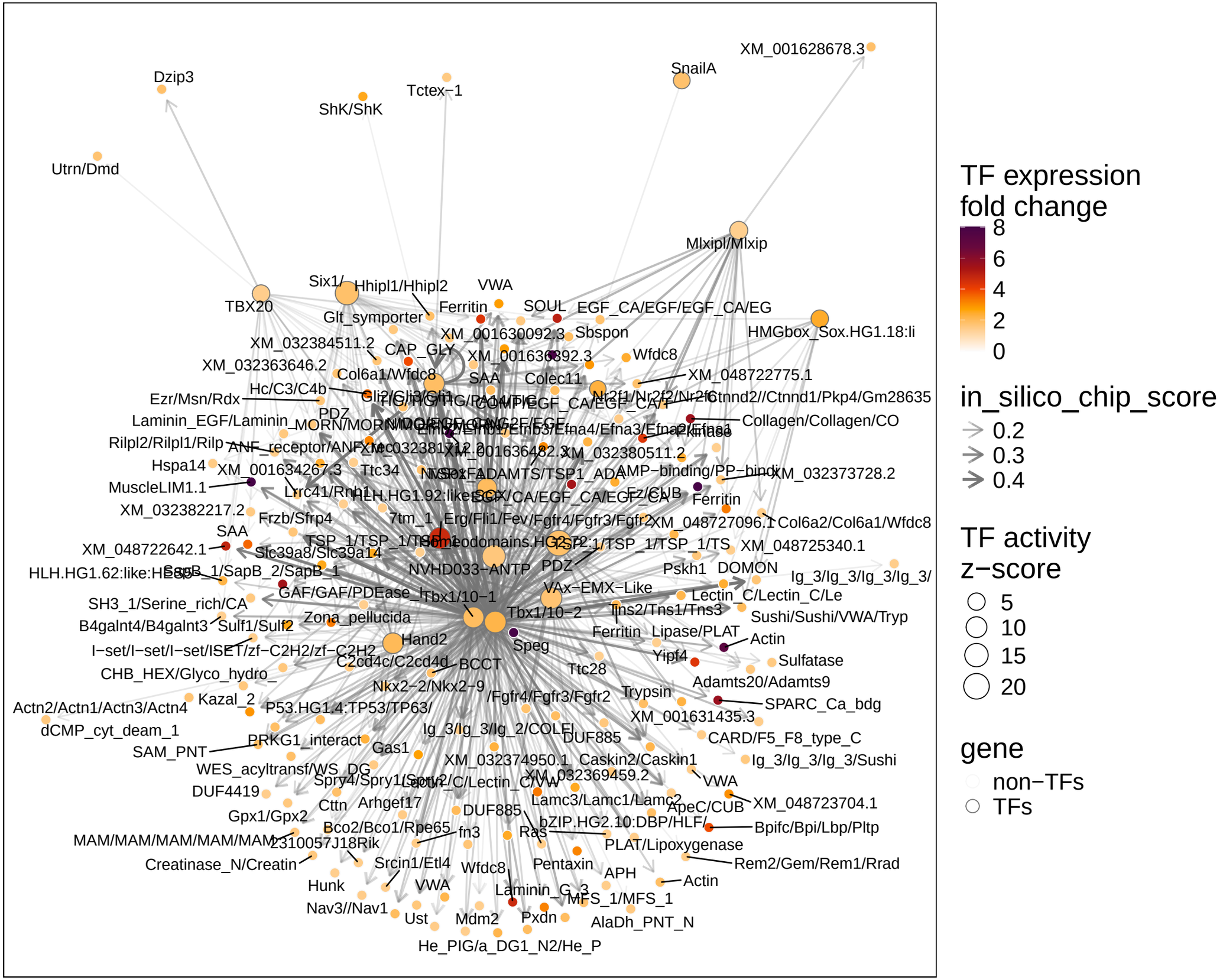
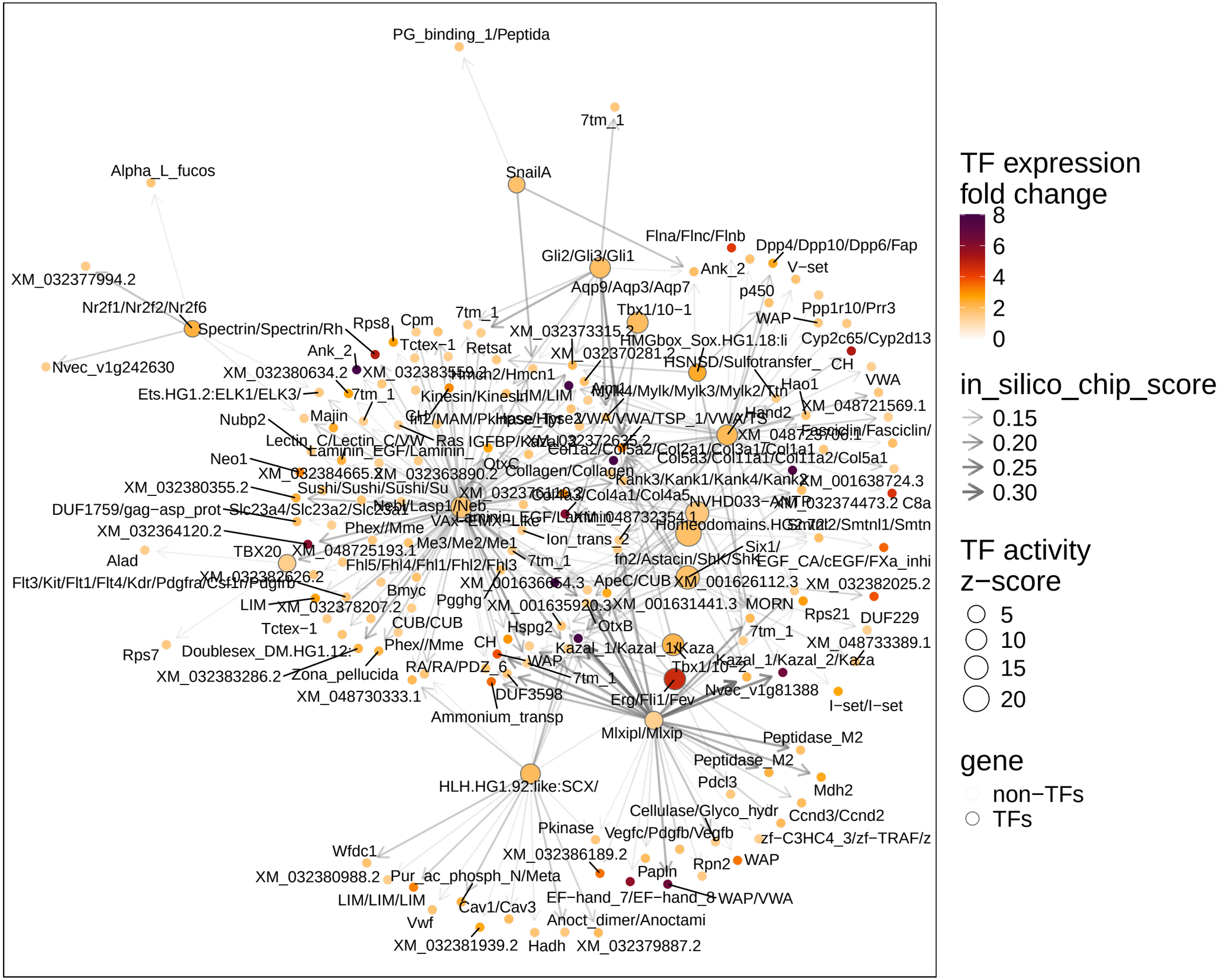


gastro circular muscle 2 module 3



TF expression fold change

8
6
4
2
0

in_silico_chip_score

0.15
0.20
0.25
0.30

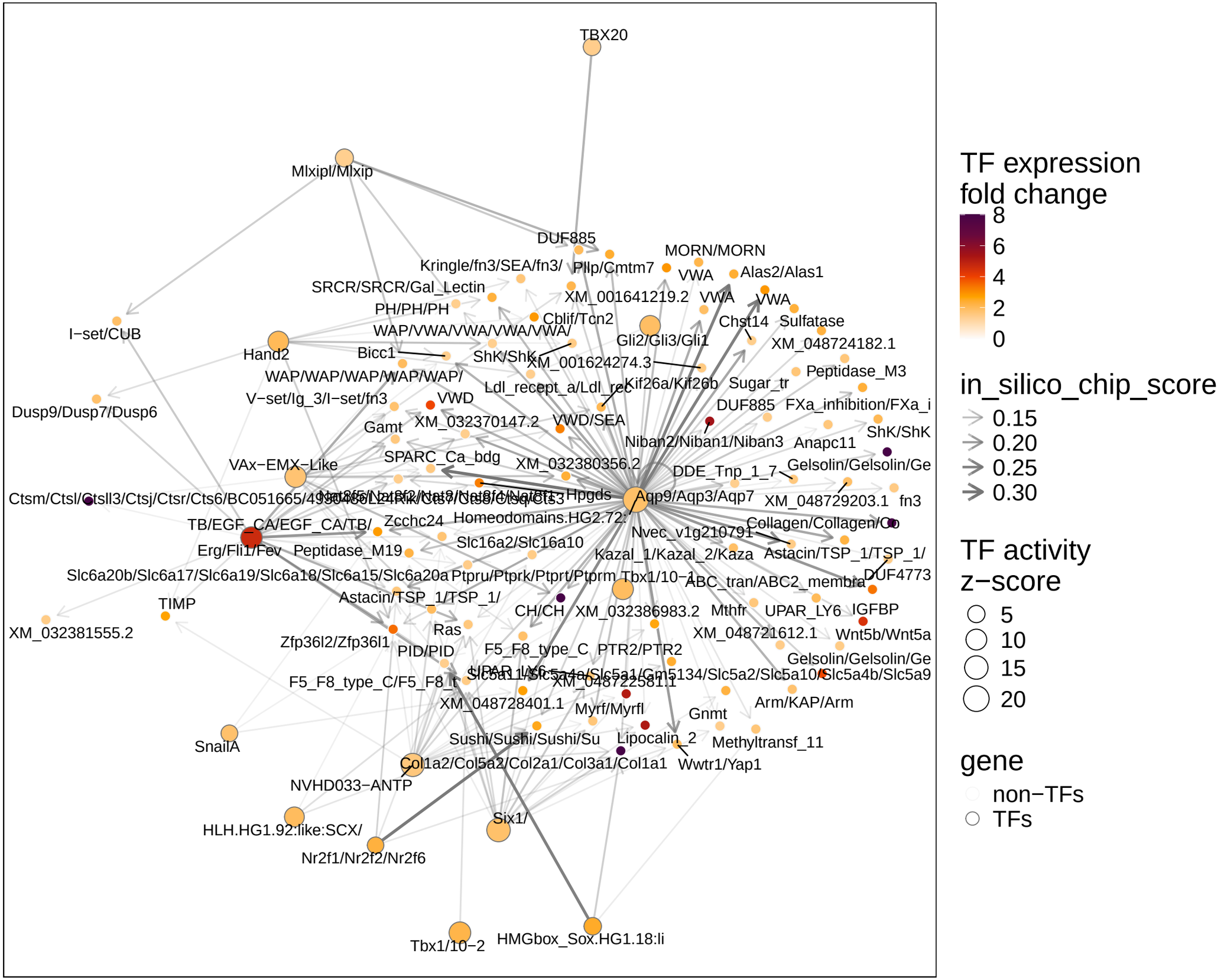
TF activity z−score

5
10
15
20

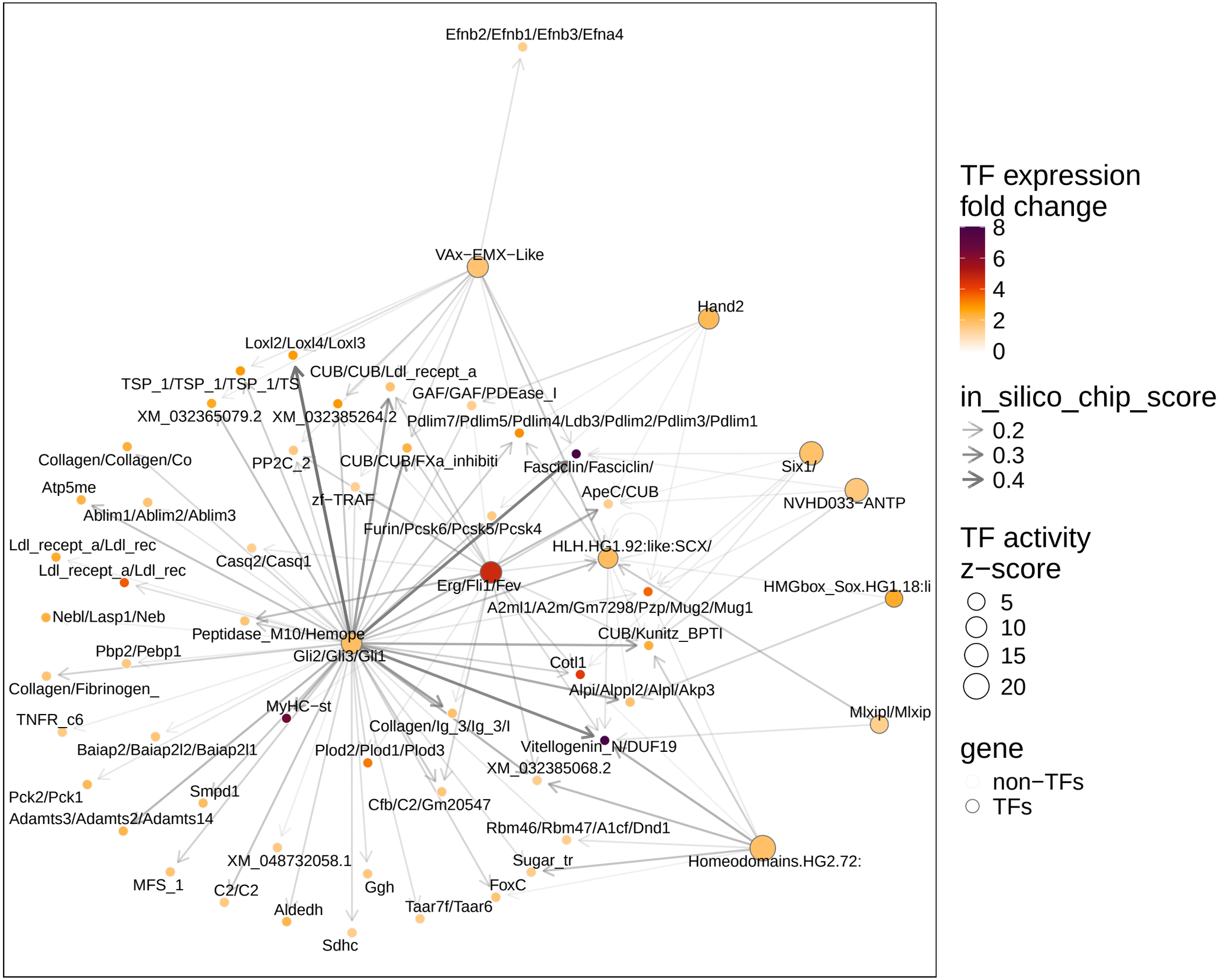
gene

non−TFs
TFs

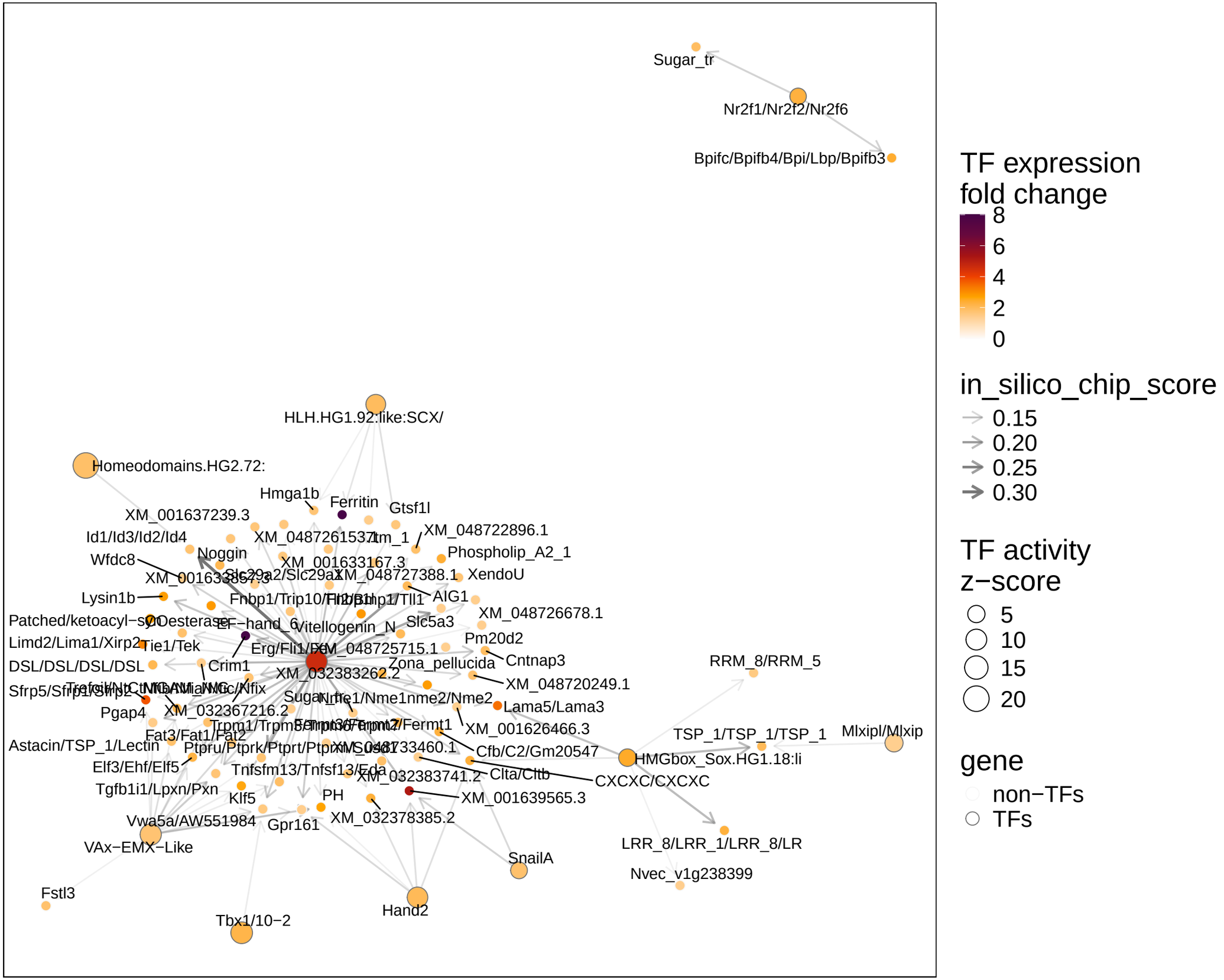
gastro circular muscle 2 module 4



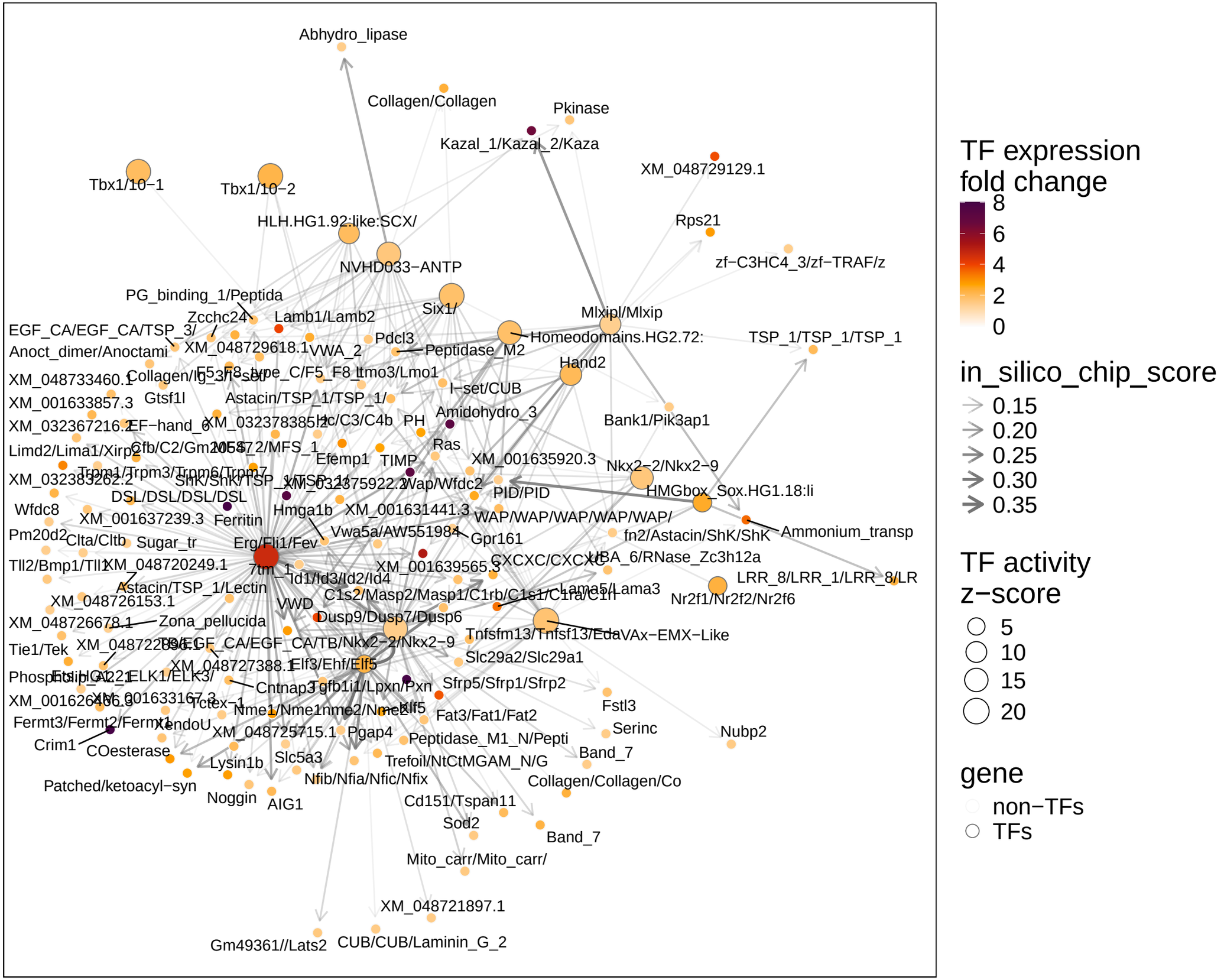
gastro circular muscle 2 module 5



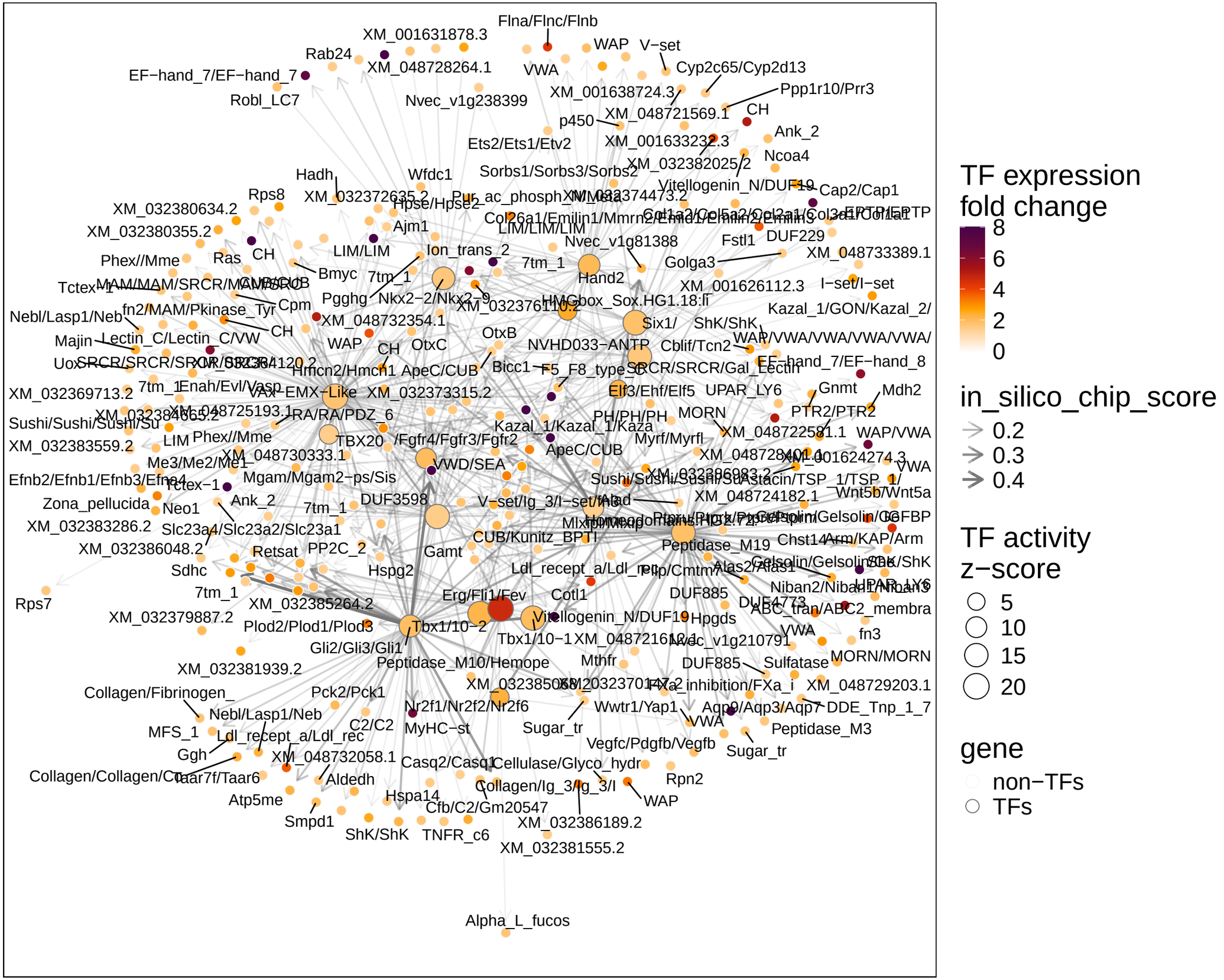
gastro circular muscle 2 module 6



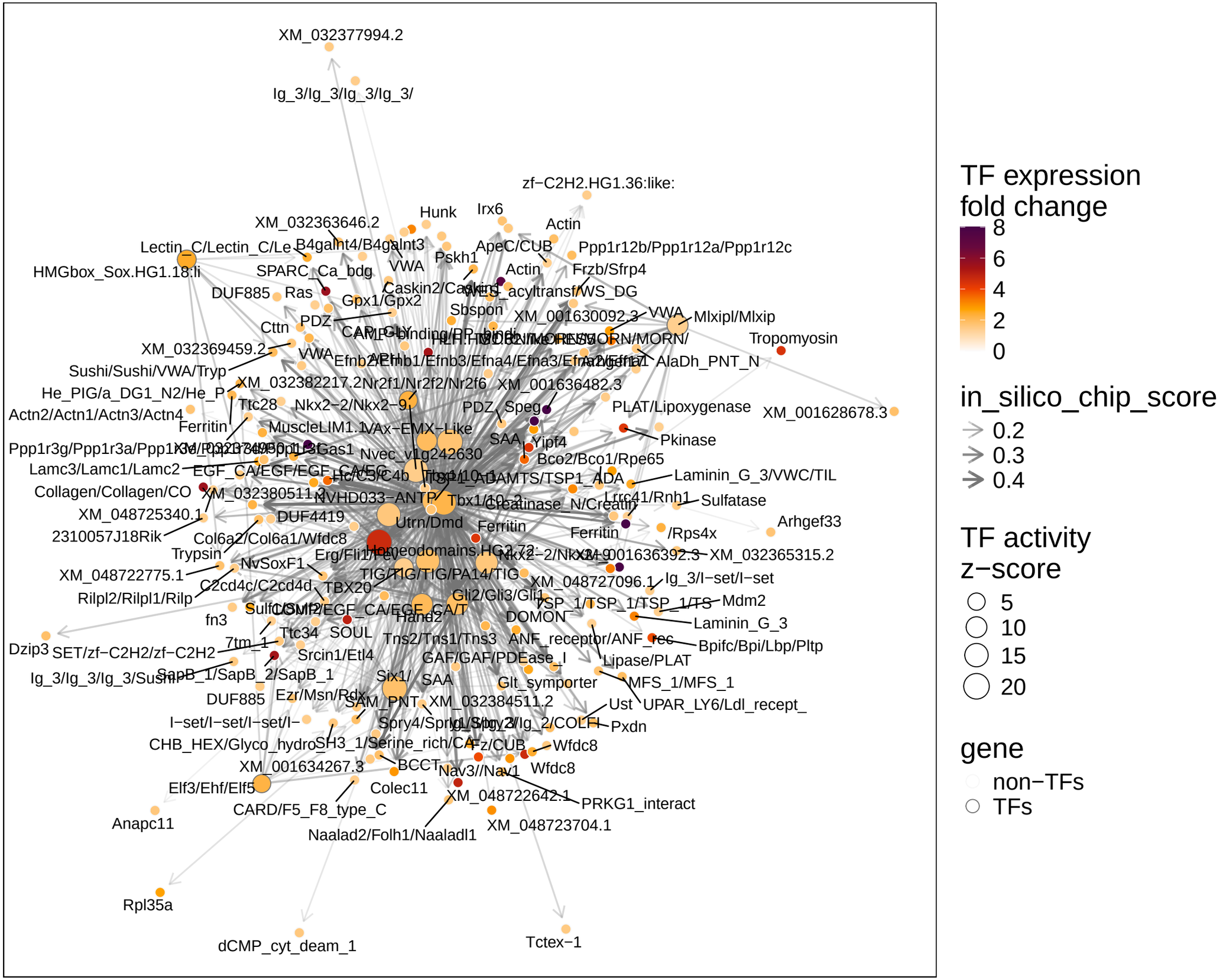
gastro parietal muscle module 1



gastro parietal muscle module 2



gastro parietal muscle module 3



TF expression fold change

8
6
4
2
0

in_silico_chip_score

0.2
0.3
0.4

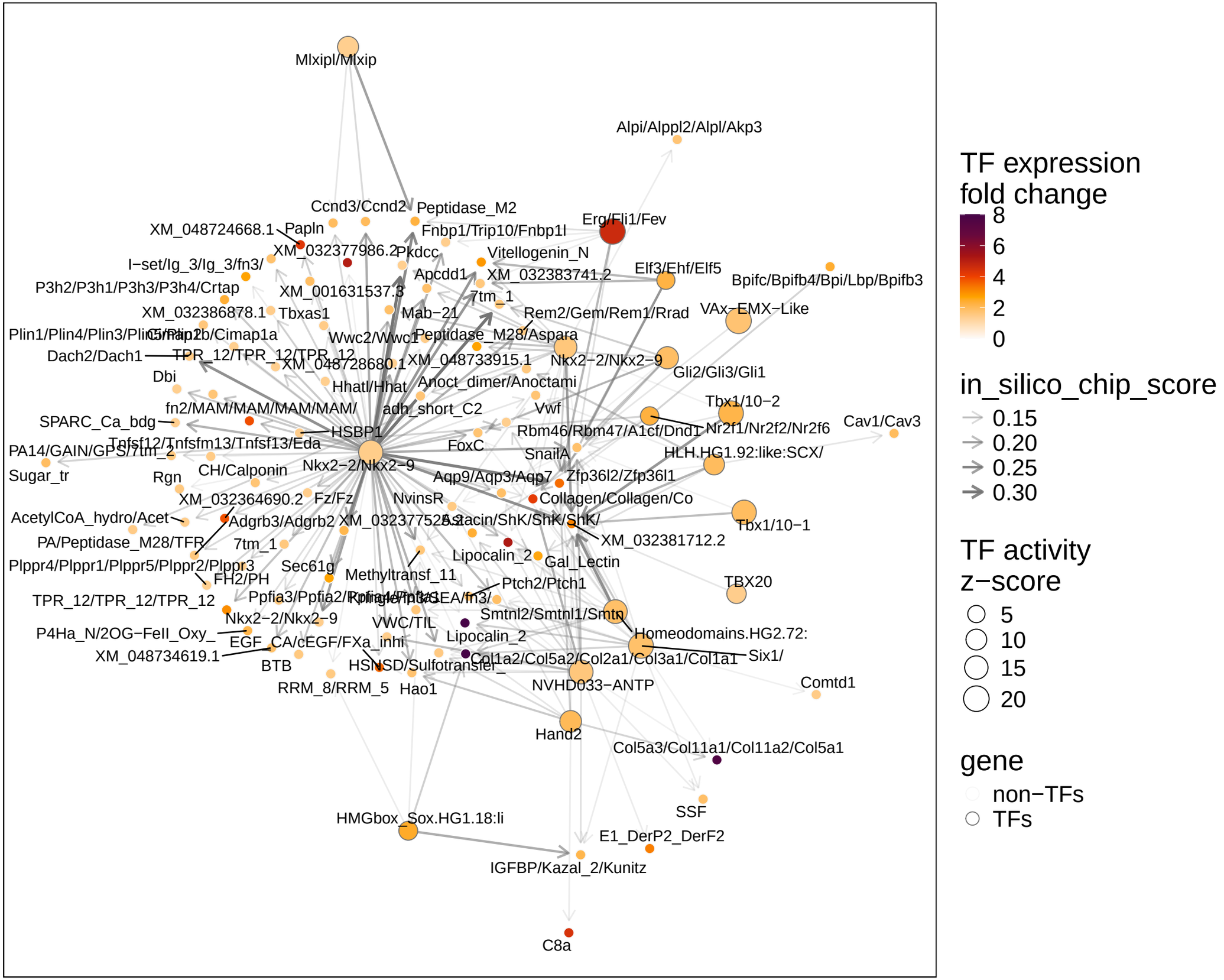
TF activity z−score

5
10
15
20

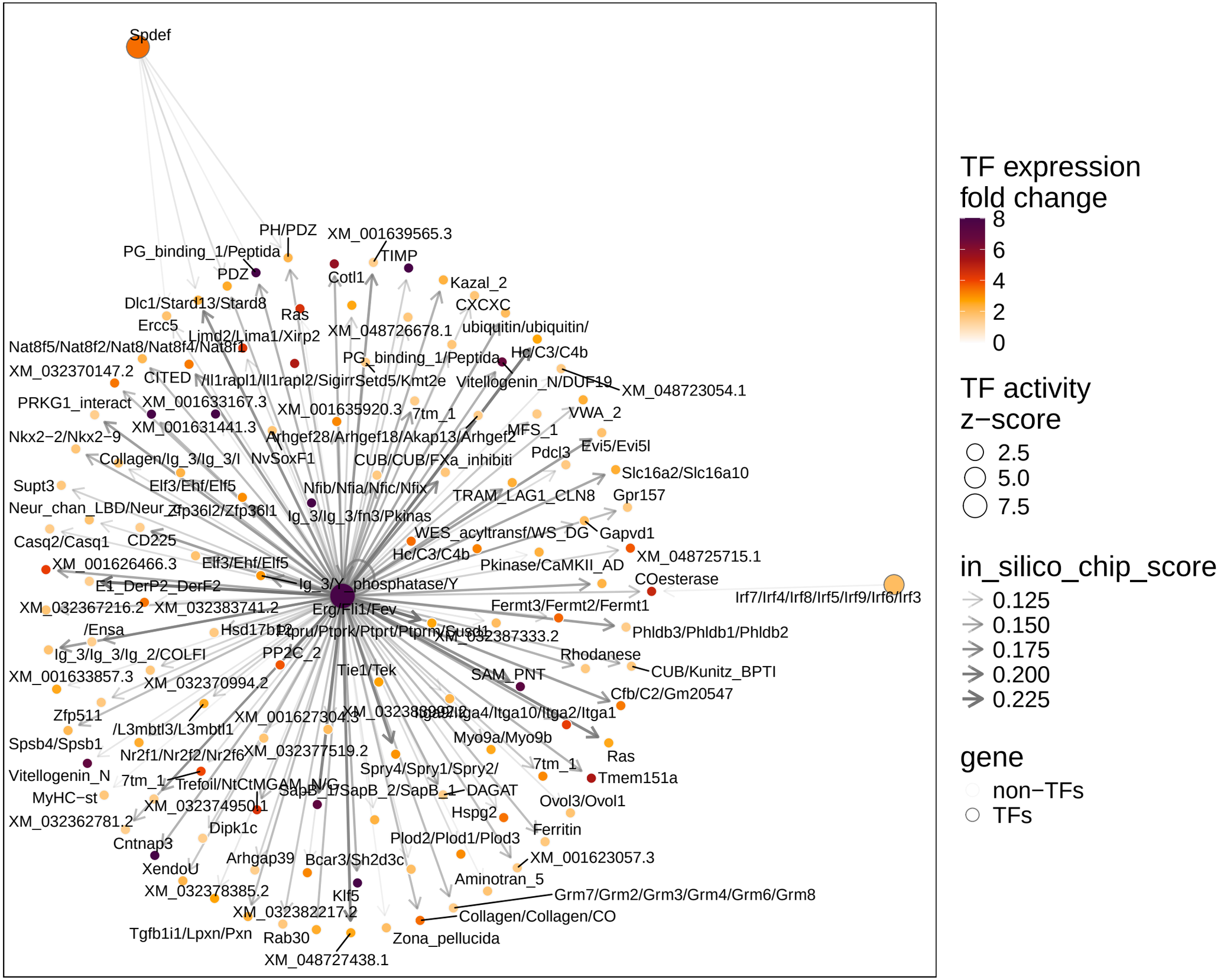
gene

non−TFs
TFs

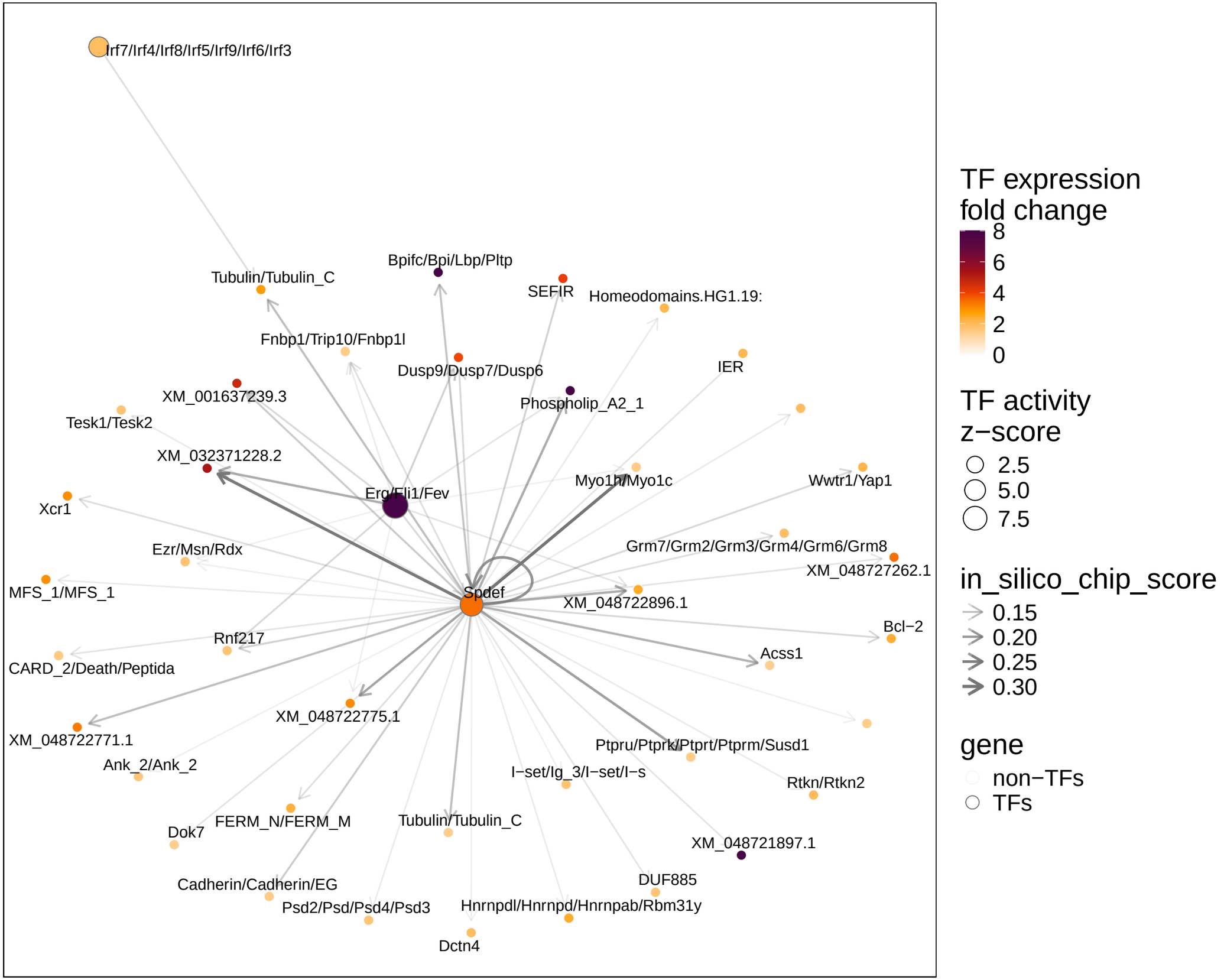
gastro parietal muscle module 4



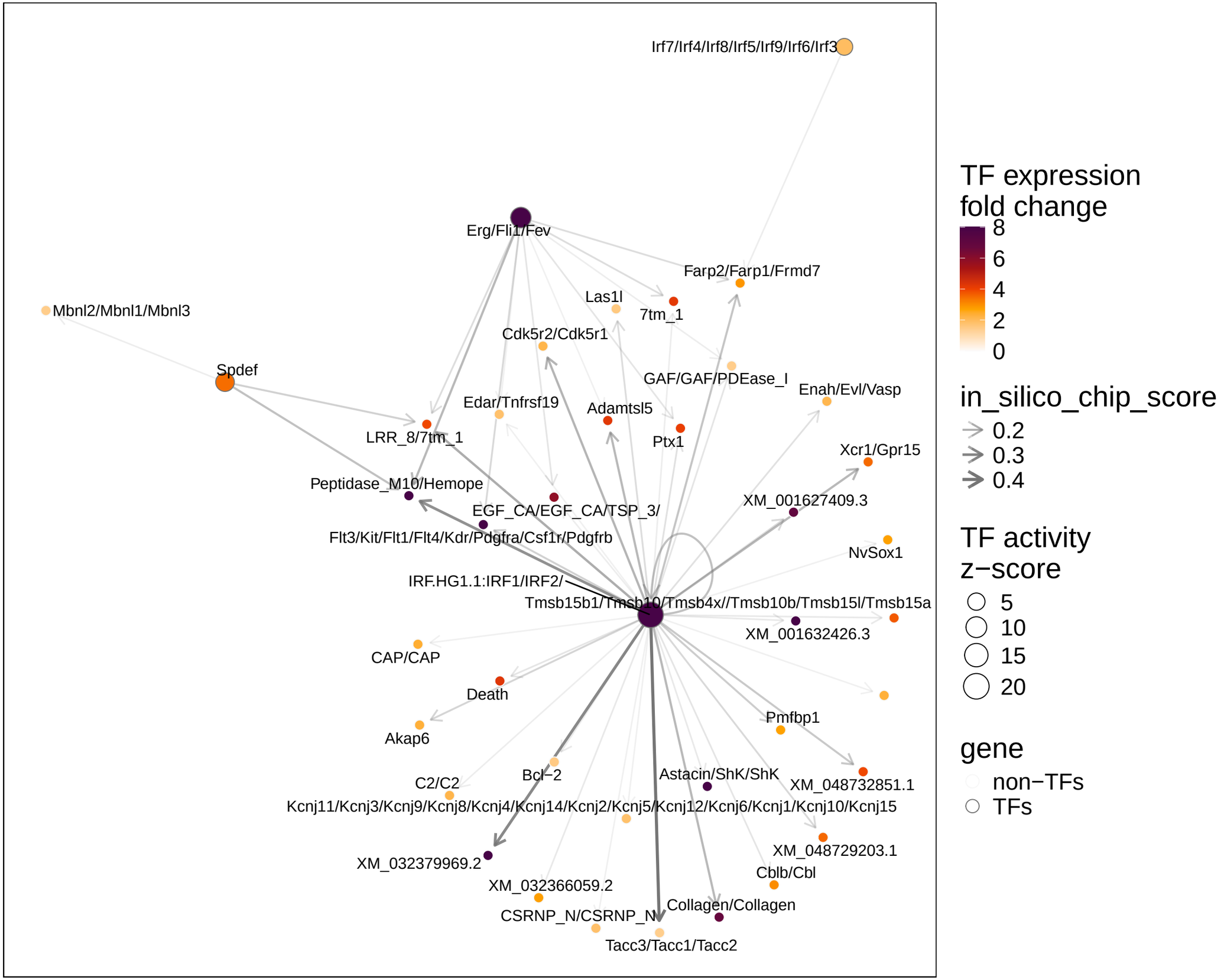
gastro IRF1 2 module 1



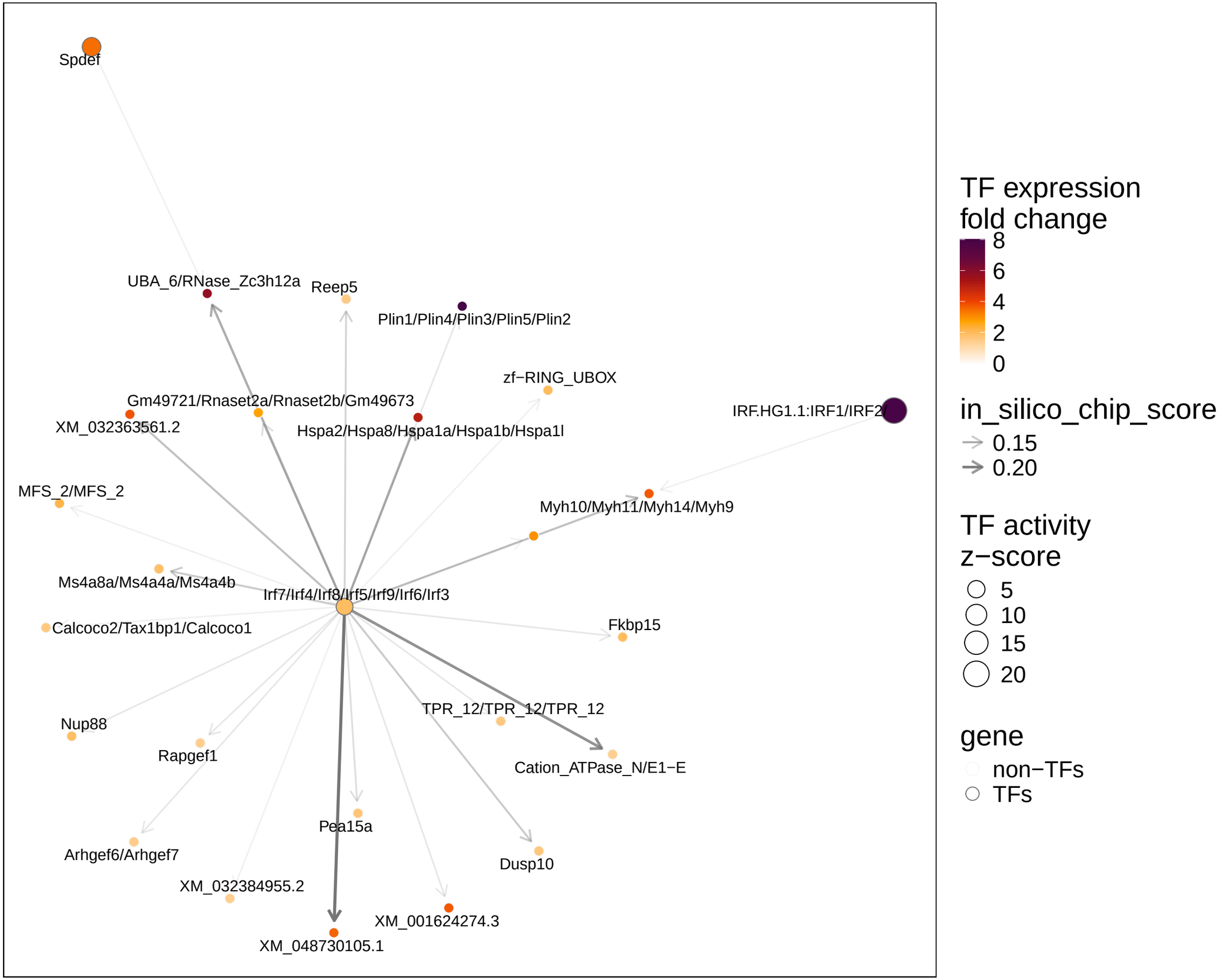
gastro IRF1 2 module 2



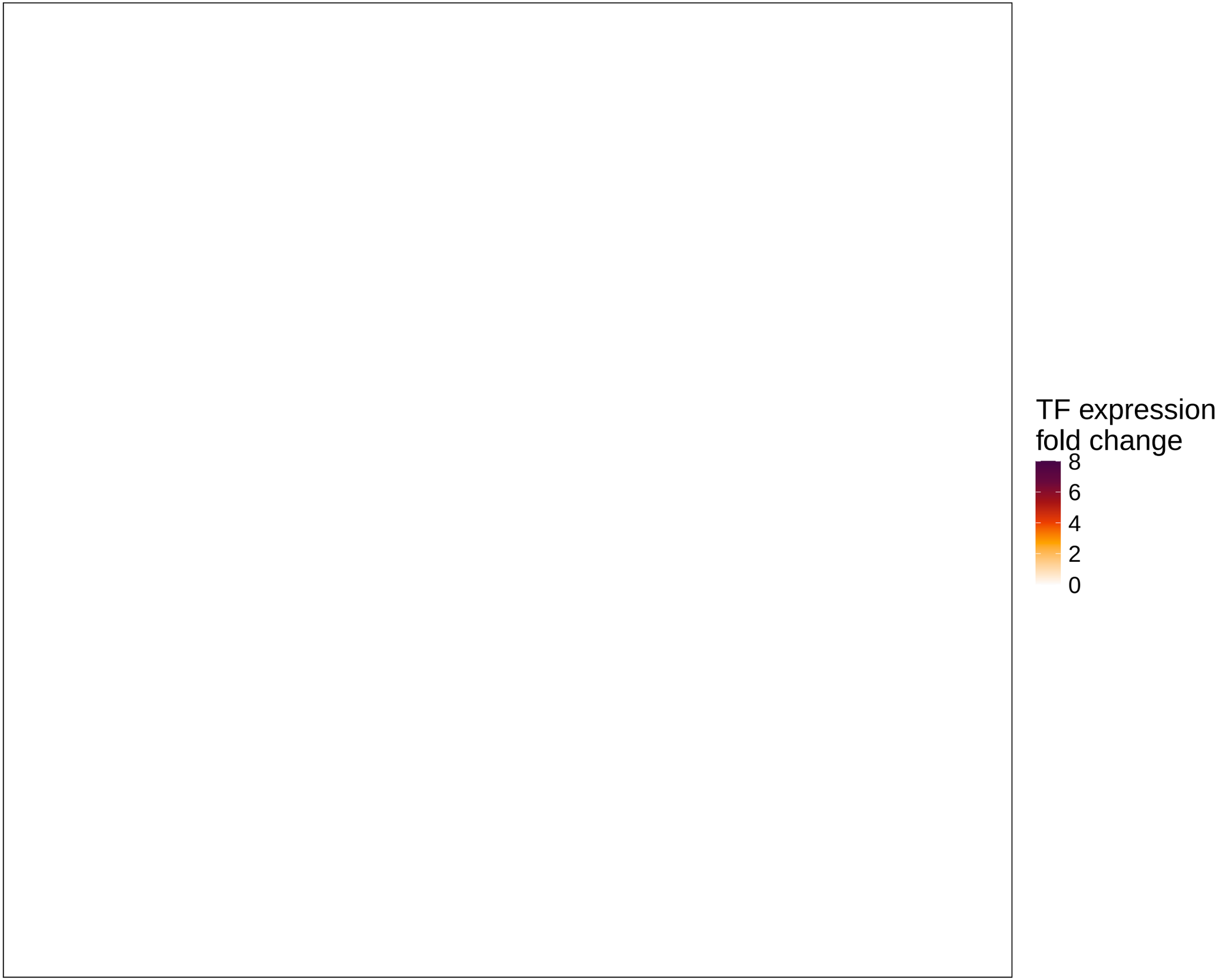
gastro IRF1 2 module 3



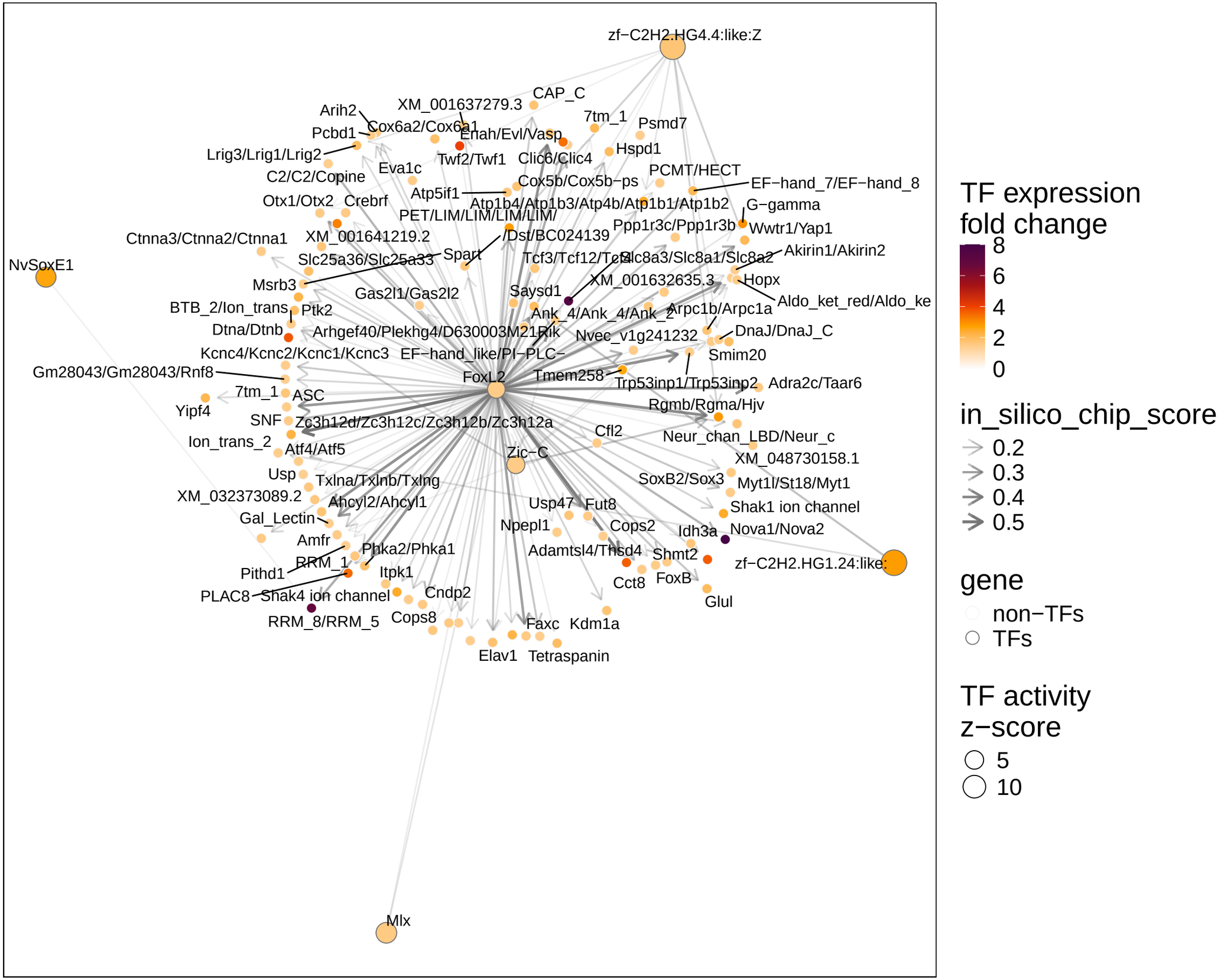
gastro IRF1 2 module 4



gastro somatic gonad module 1



muscle tentacle retractor module 1



TF expression fold change

8
6
4
2
0

in_silico_chip_score

0.2
0.3
0.4
0.5

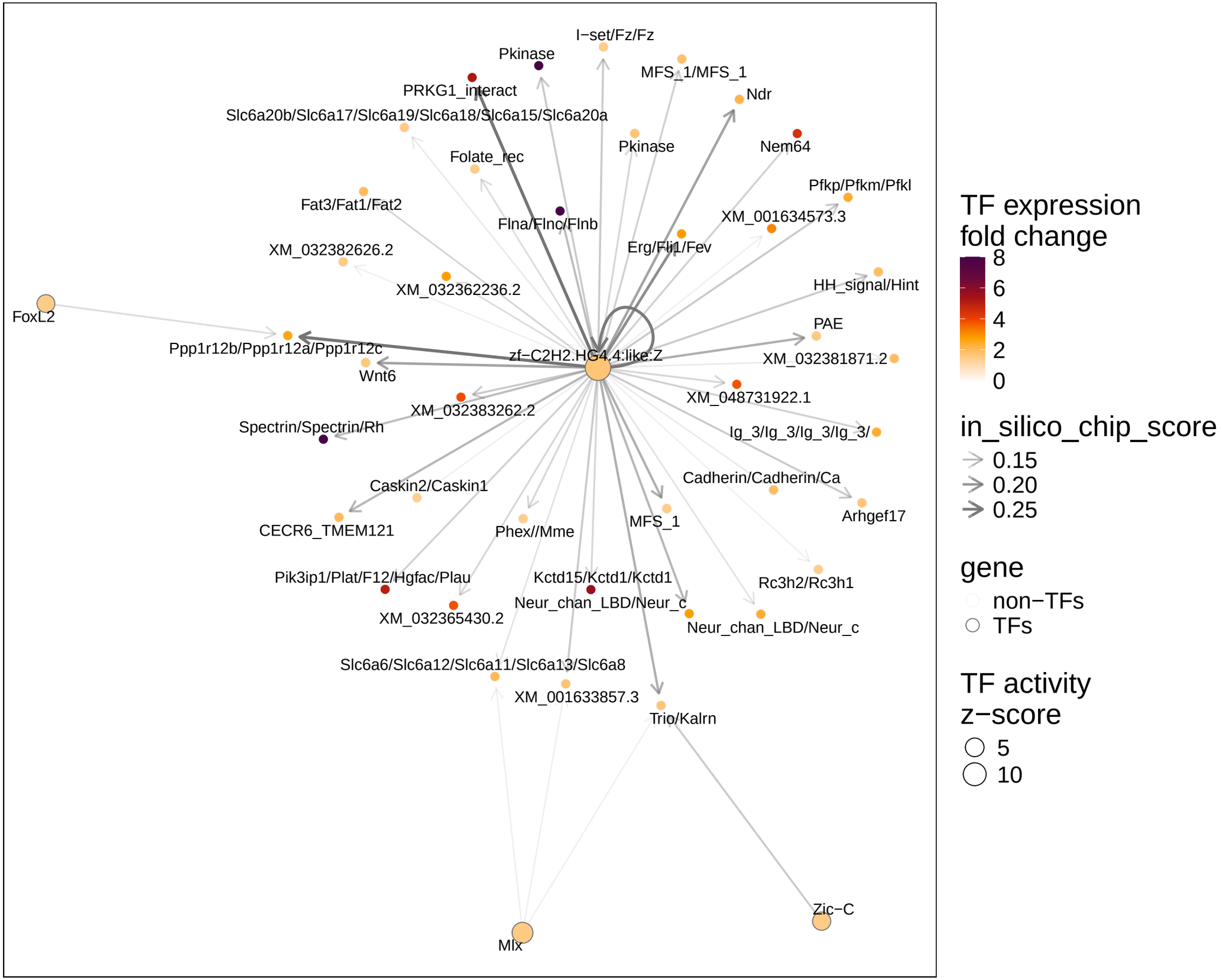
gene

non−TFs
TFs

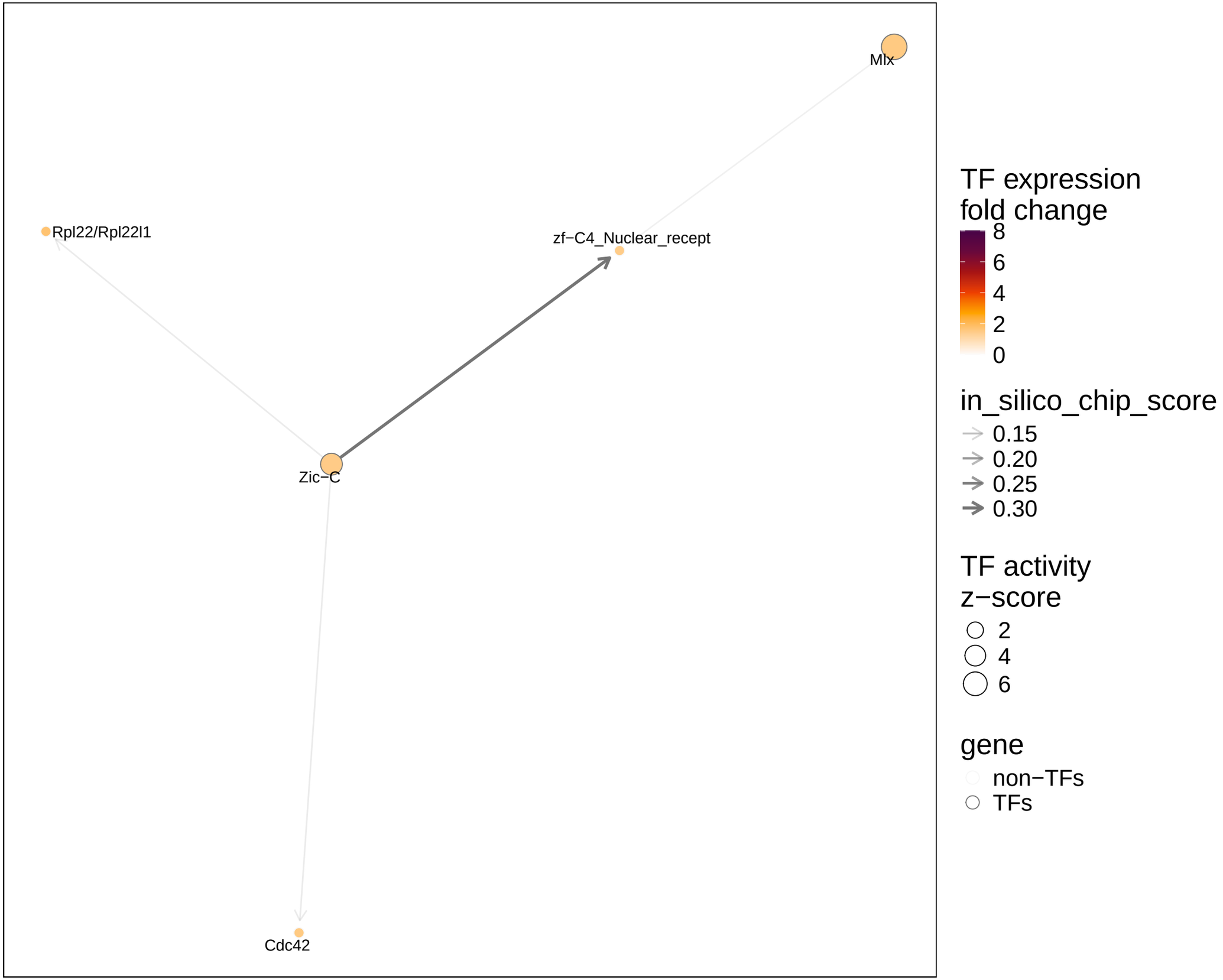
TF activity z−score

5
10

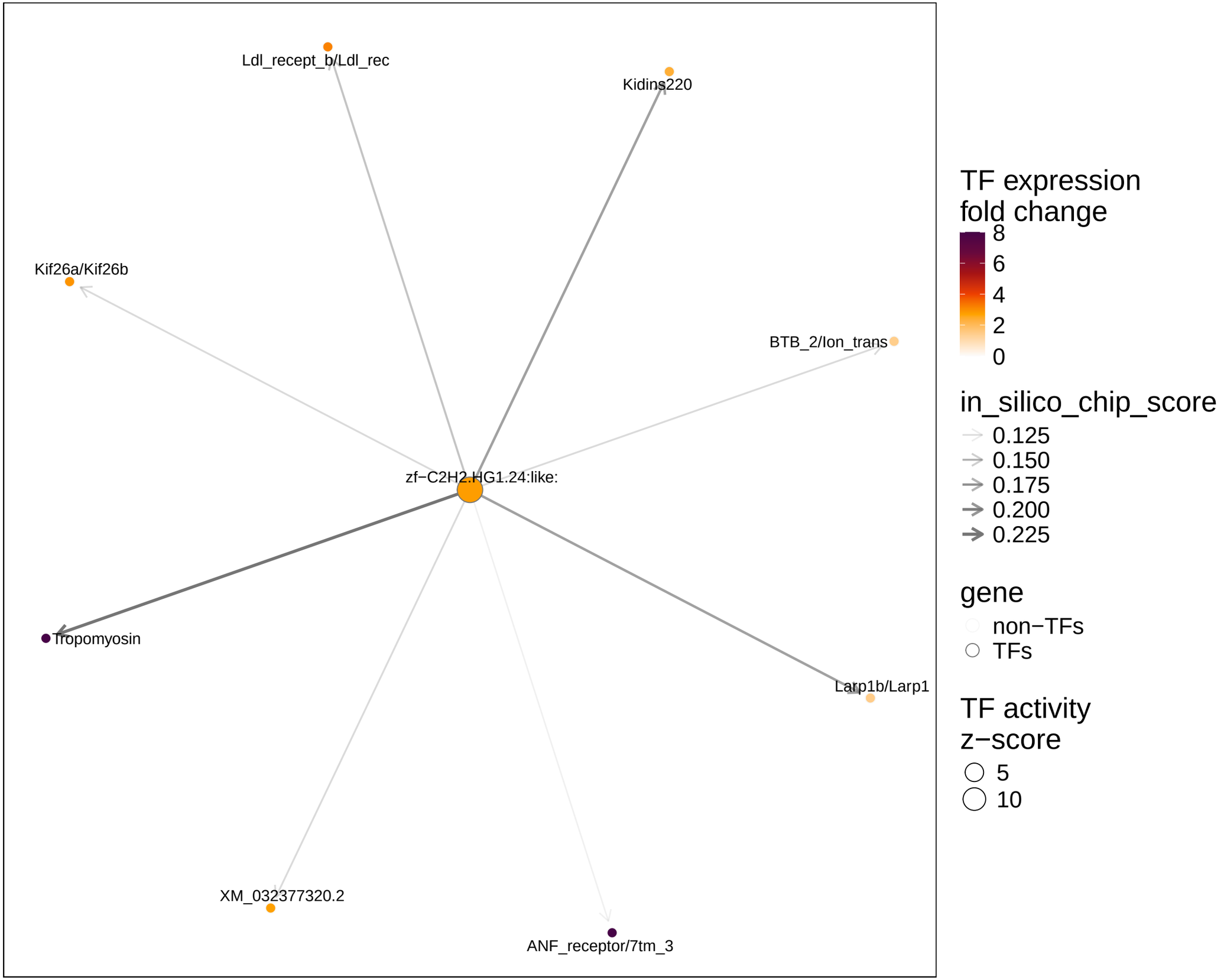
muscle tentacle retractor module 2



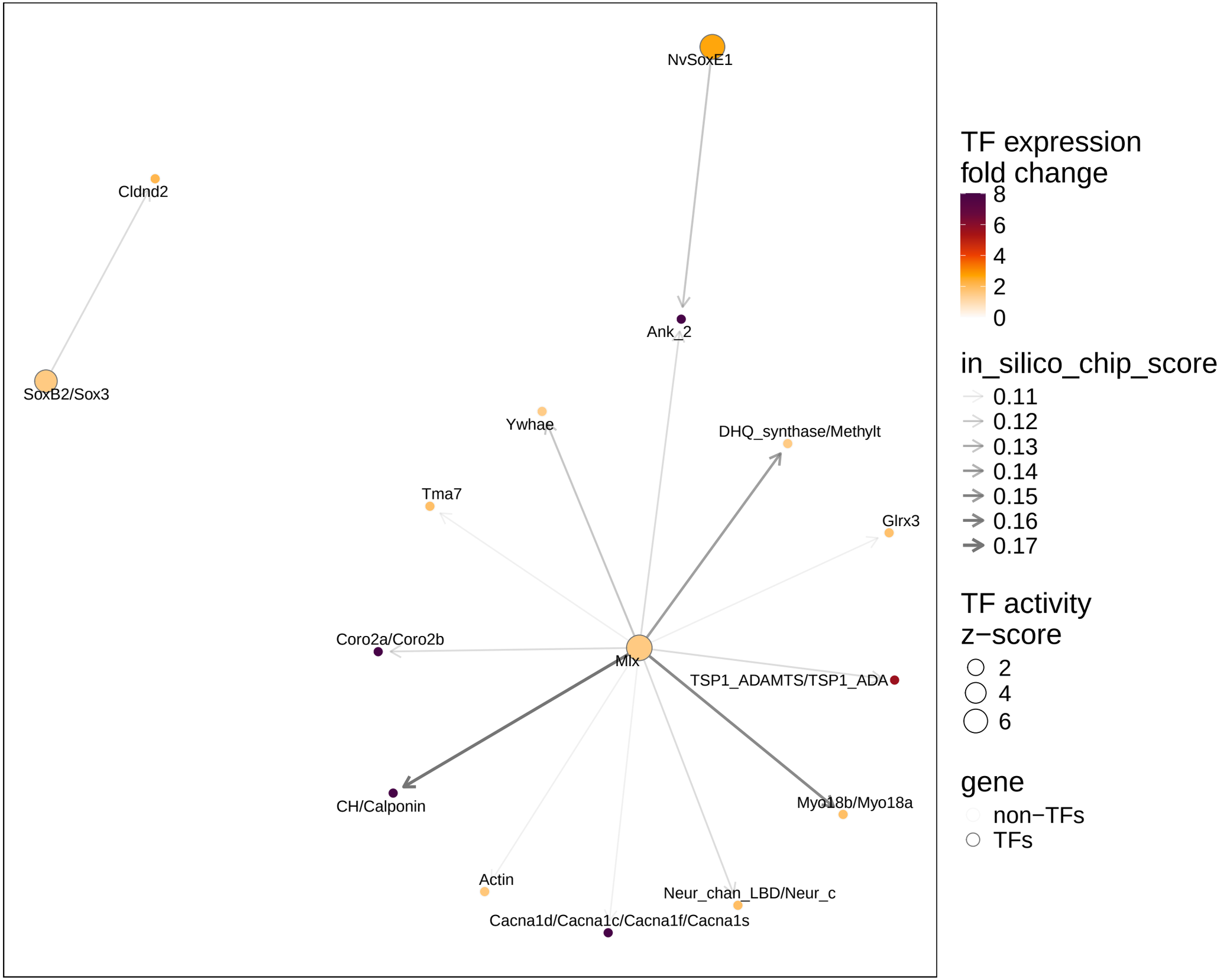
muscle tentacle retractor module 3



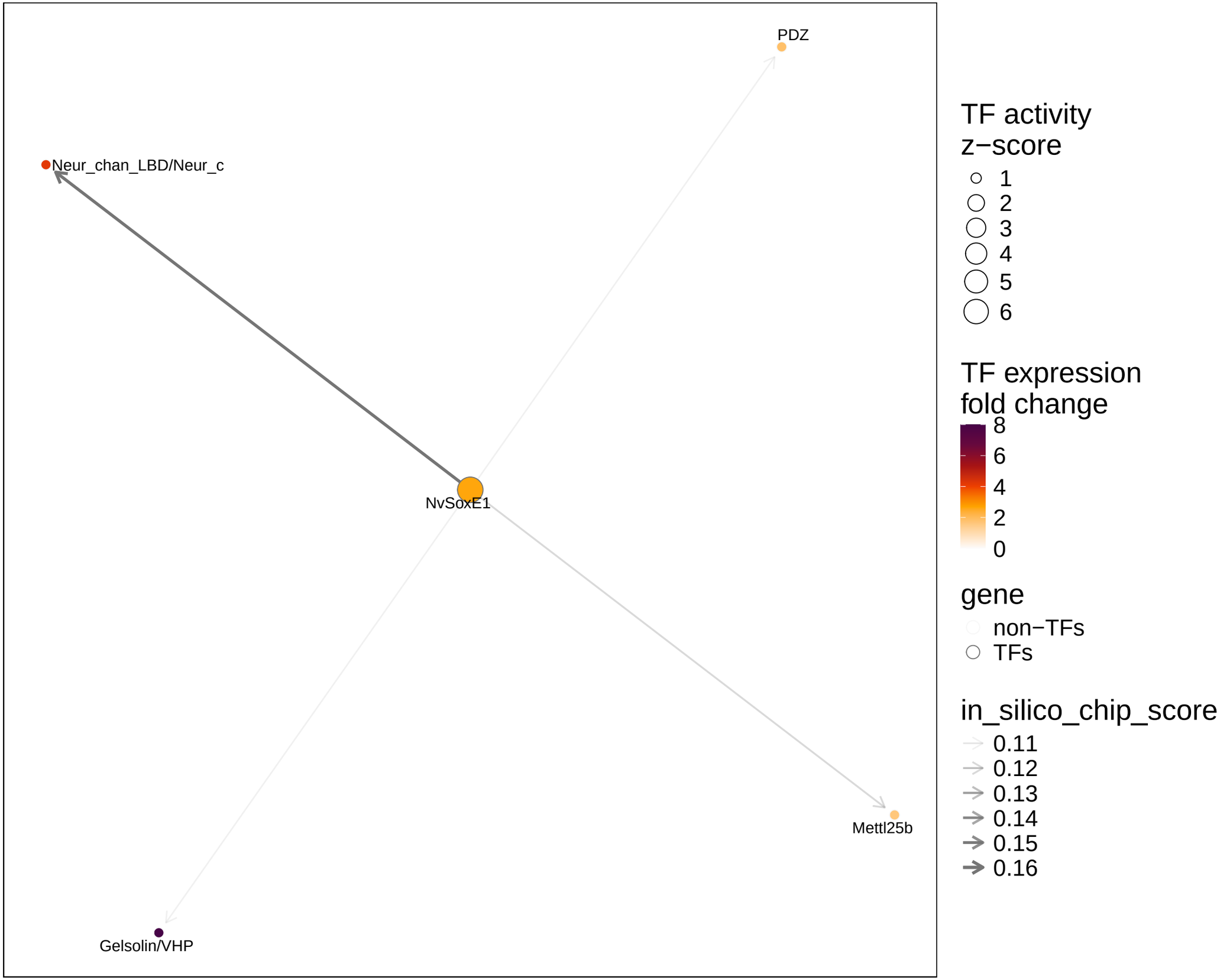
muscle tentacle retractor module 4



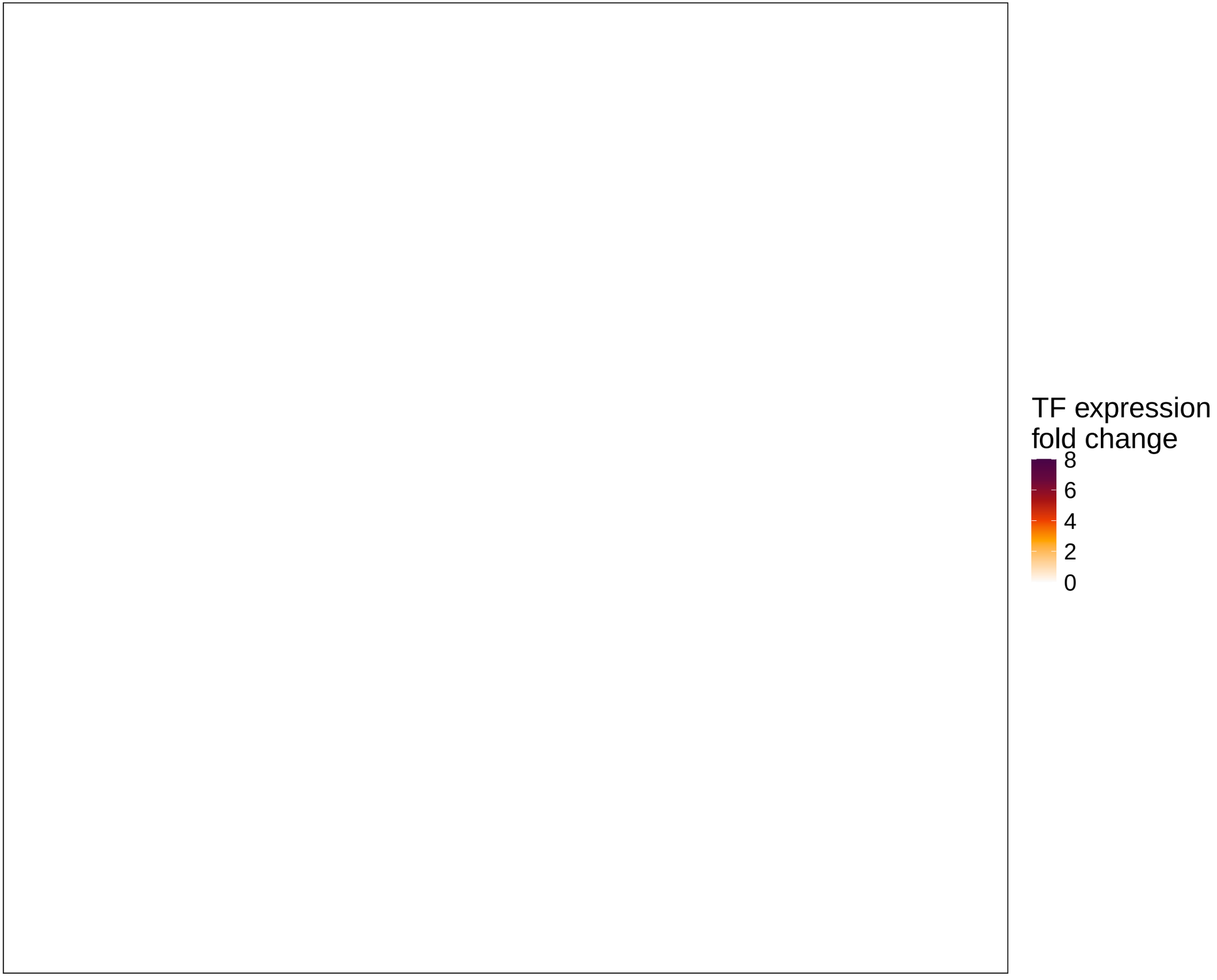
muscle tentacle retractor module 5



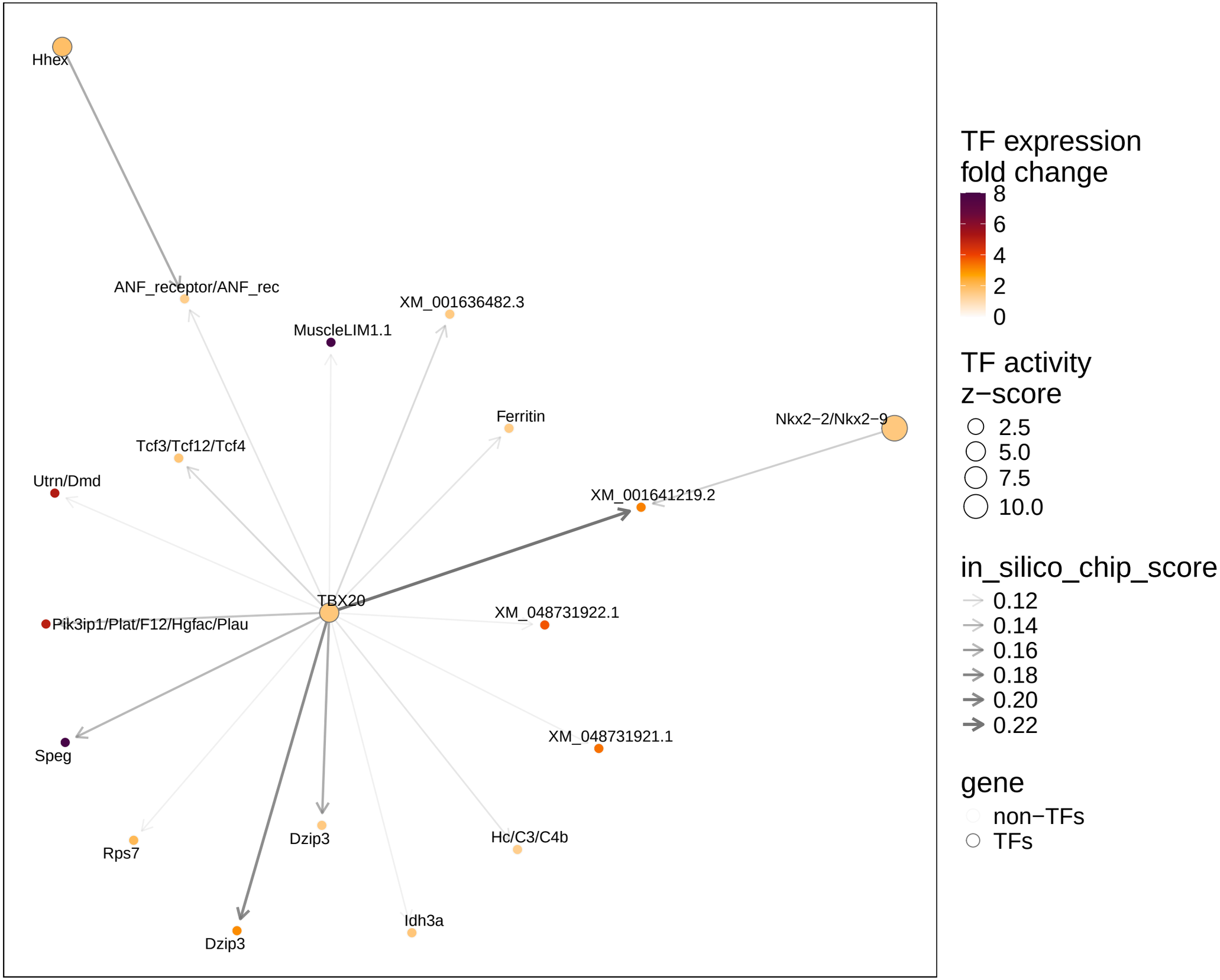
muscle tentacle retractor module 6



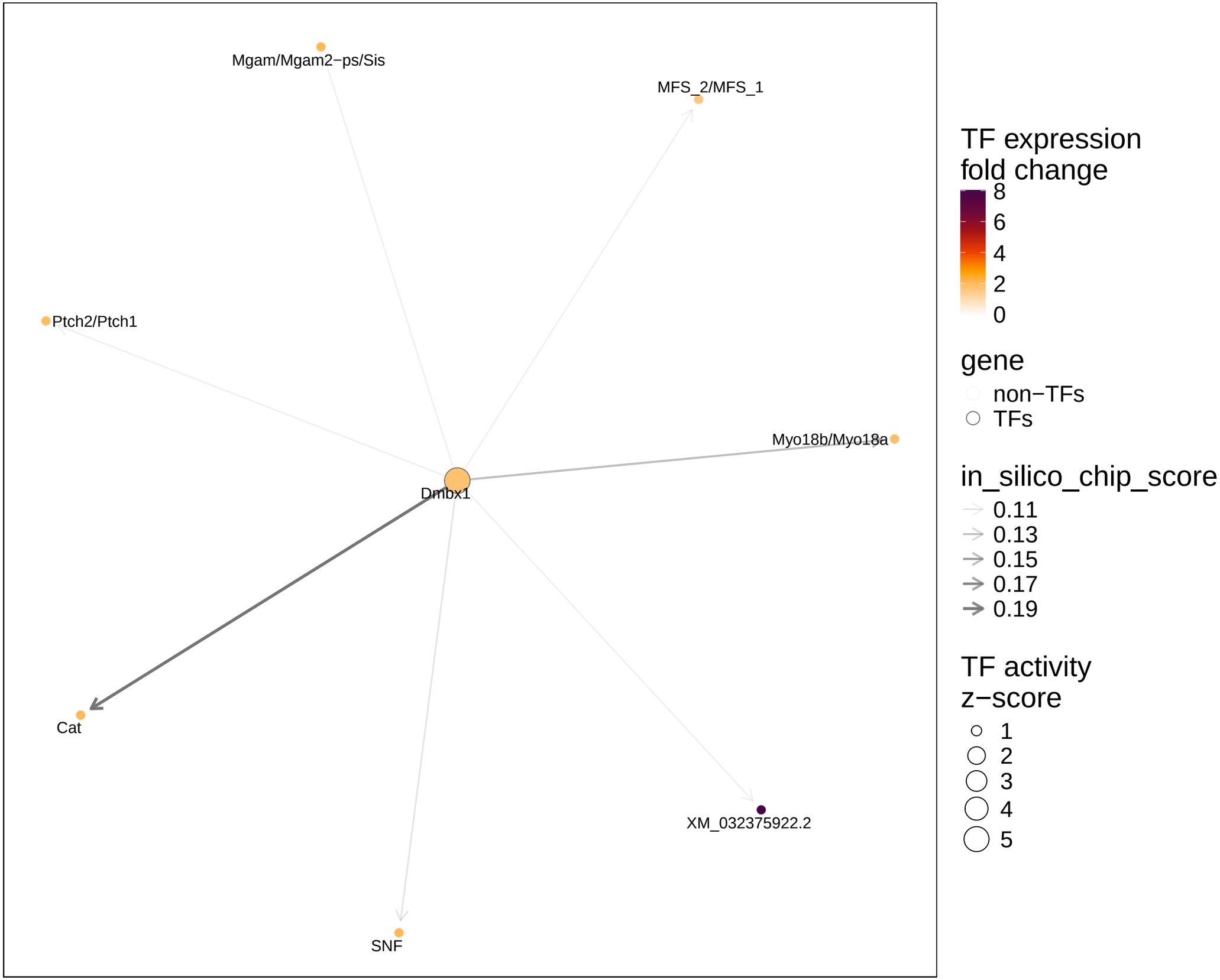
muscle mesentery retractor module 1



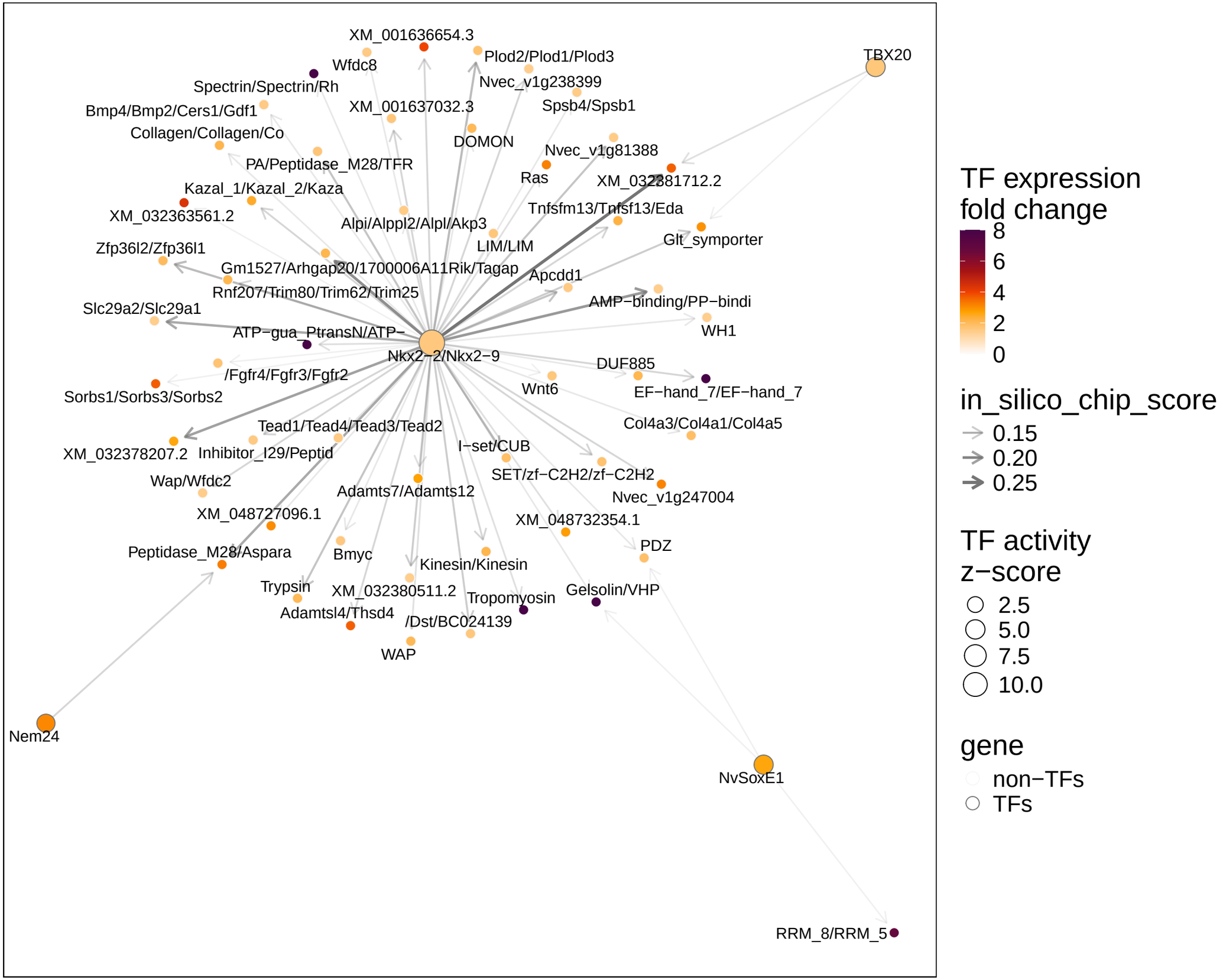
muscle mesentery retractor module 2



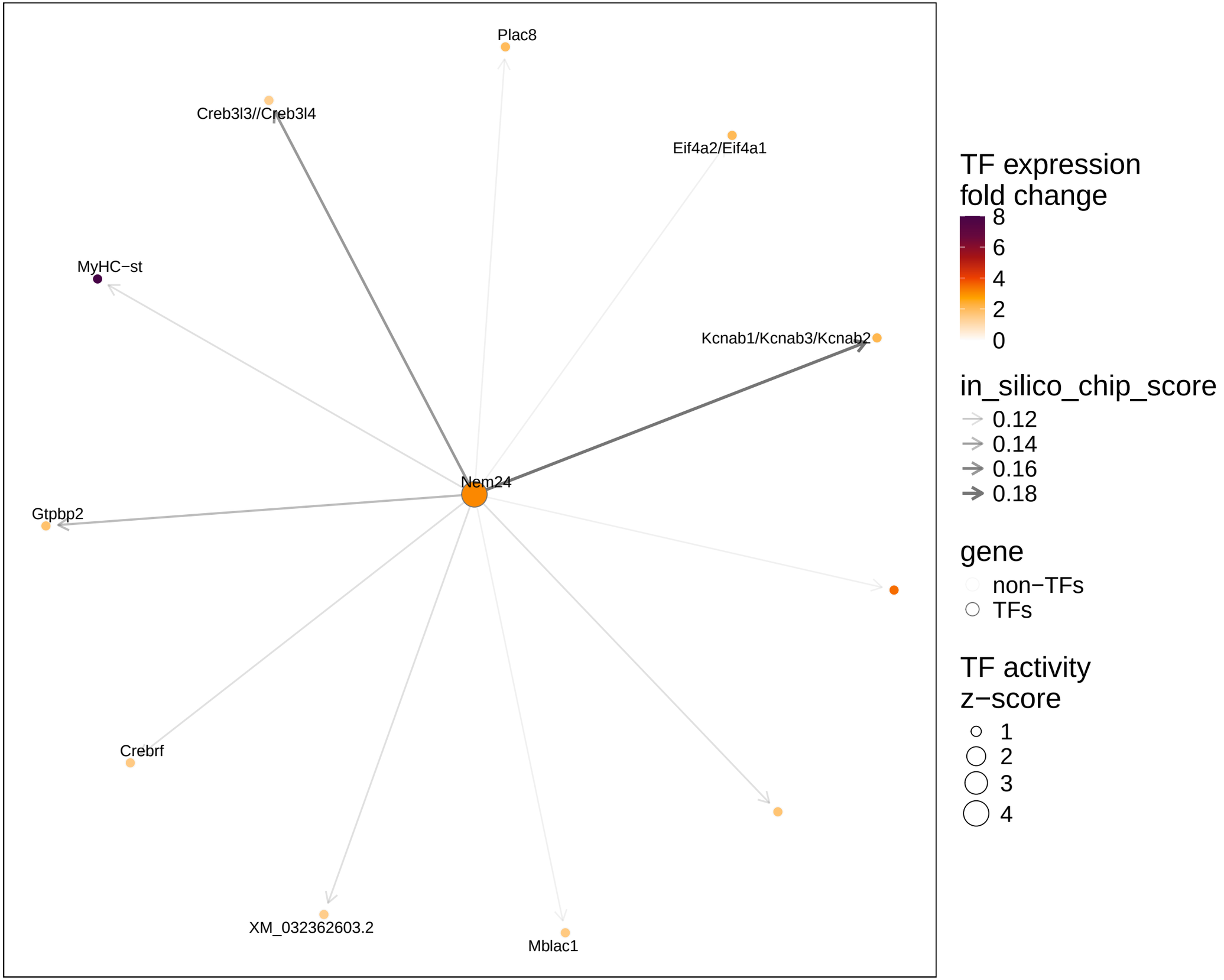
muscle mesentery retractor module 3



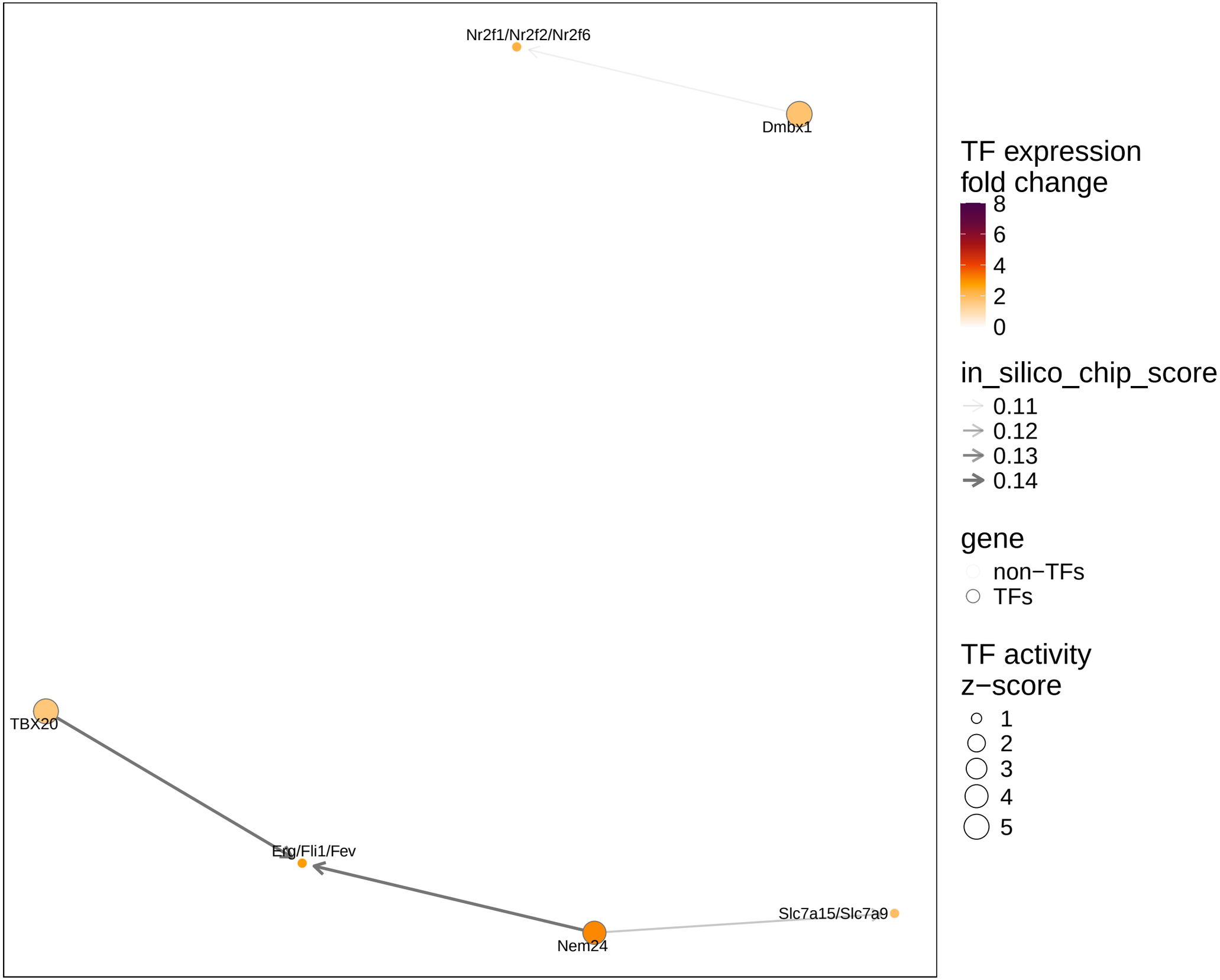
muscle mesentery retractor module 4



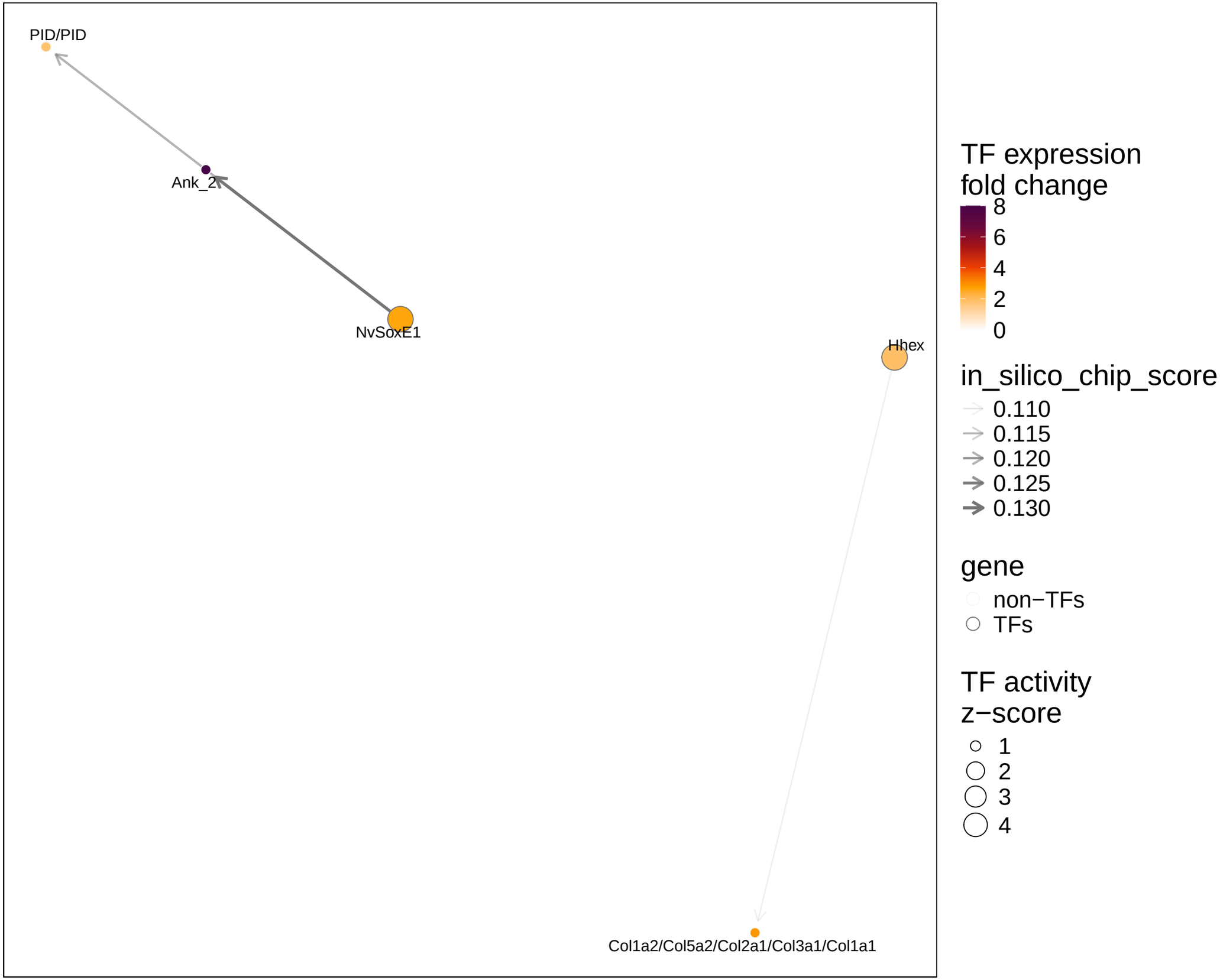
muscle mesentery retractor module 5



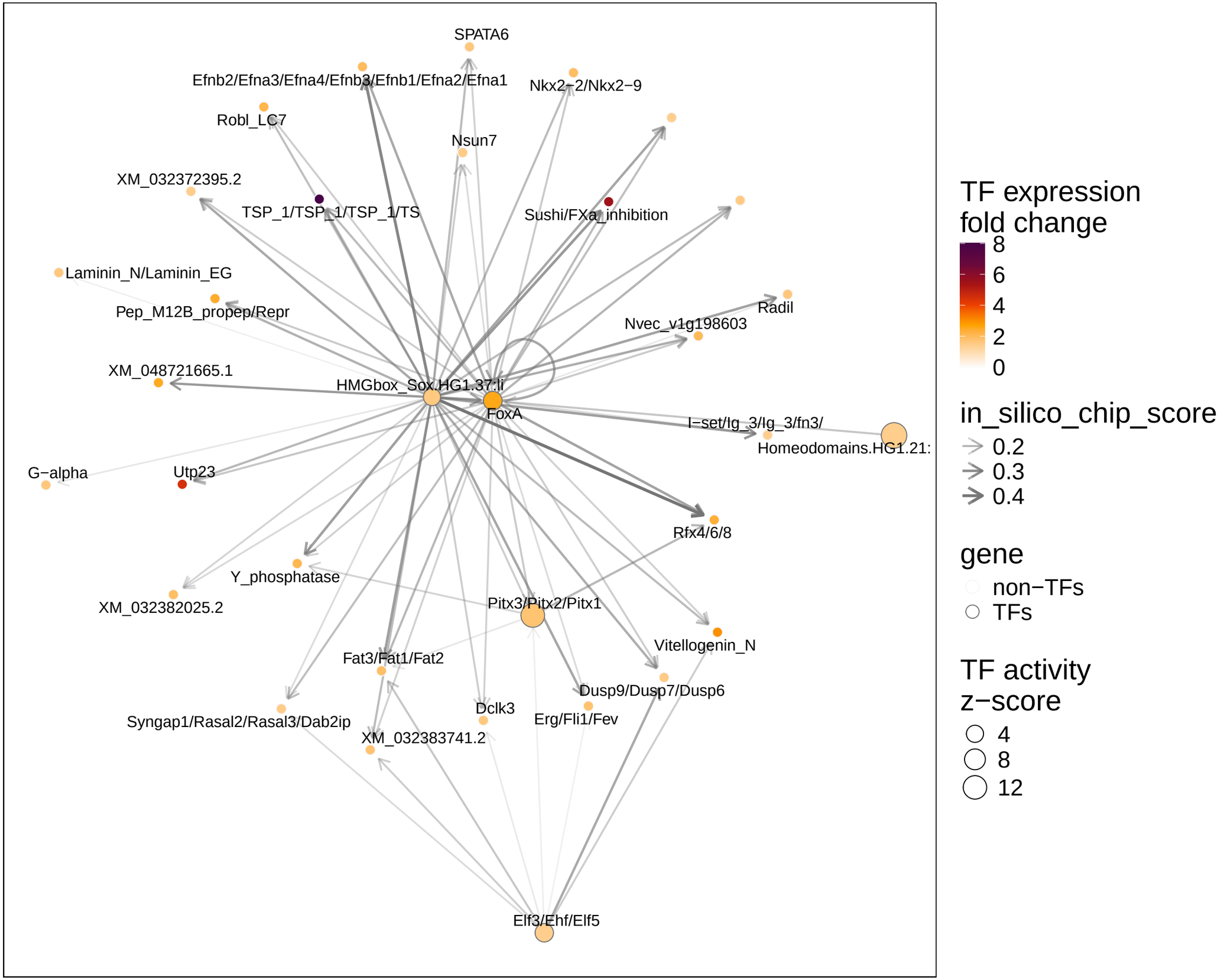
muscle mesentery retractor module 6



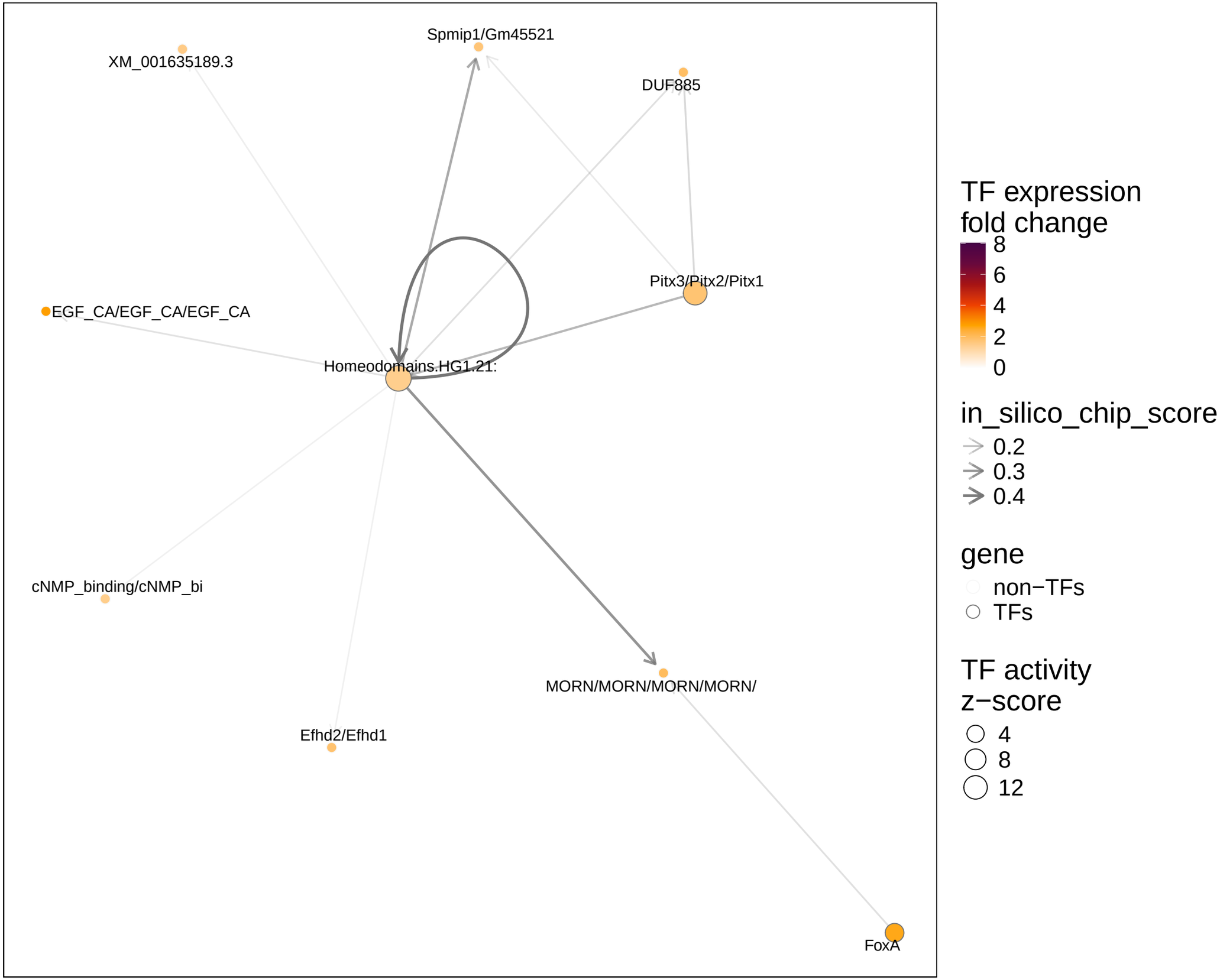
muscle mesentery retractor module 7



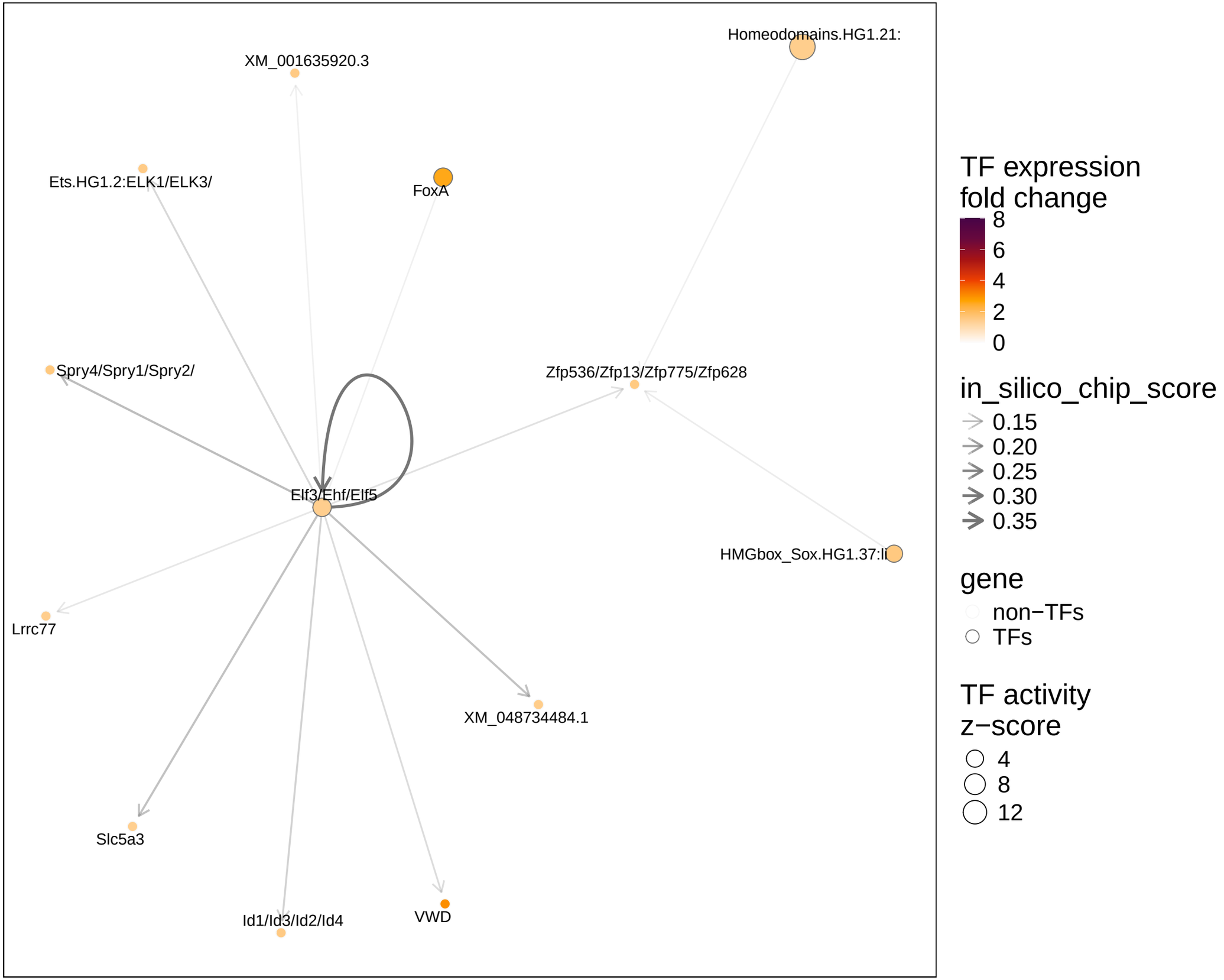
digestive filaments 1 module 1



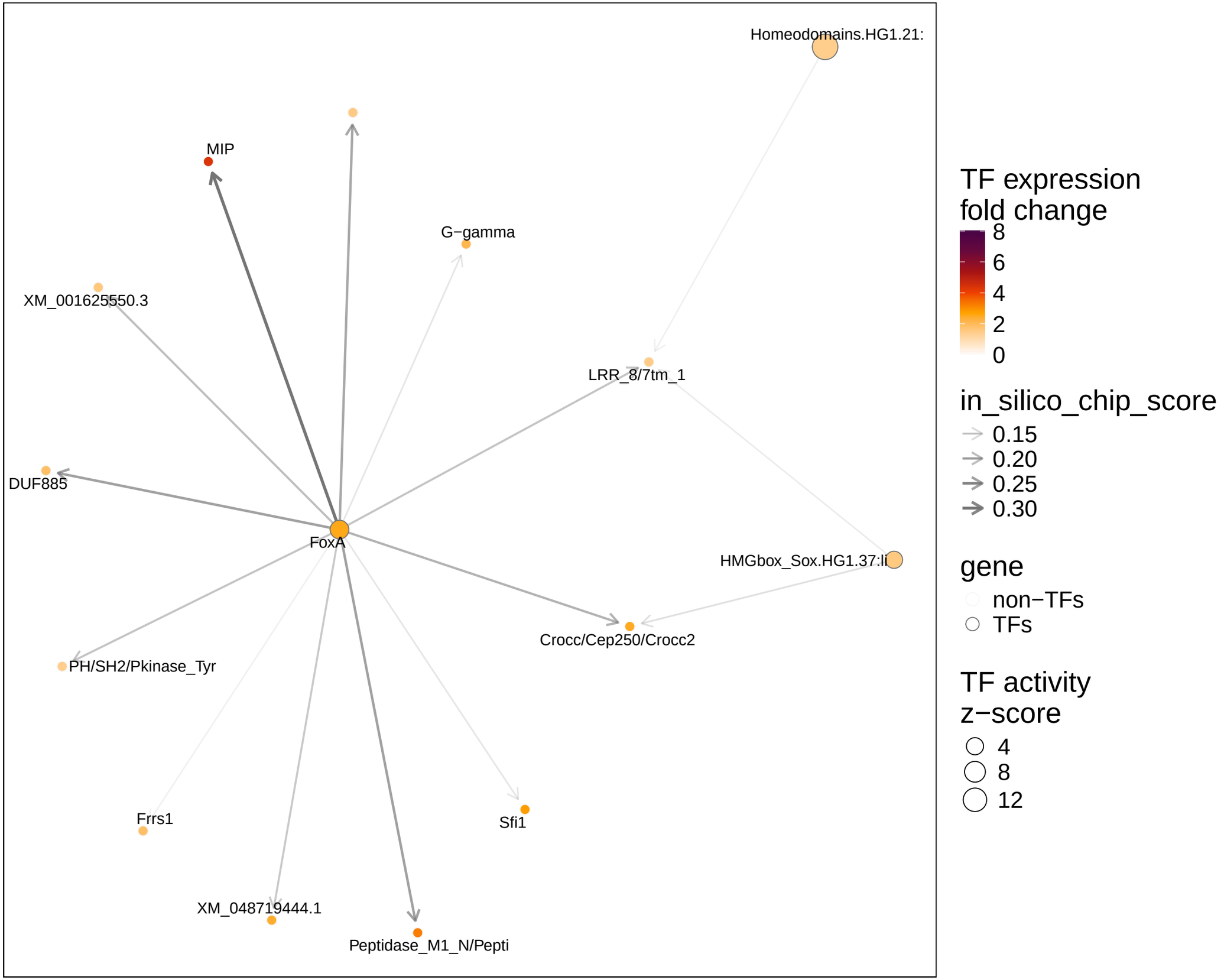
digestive filaments 1 module 2



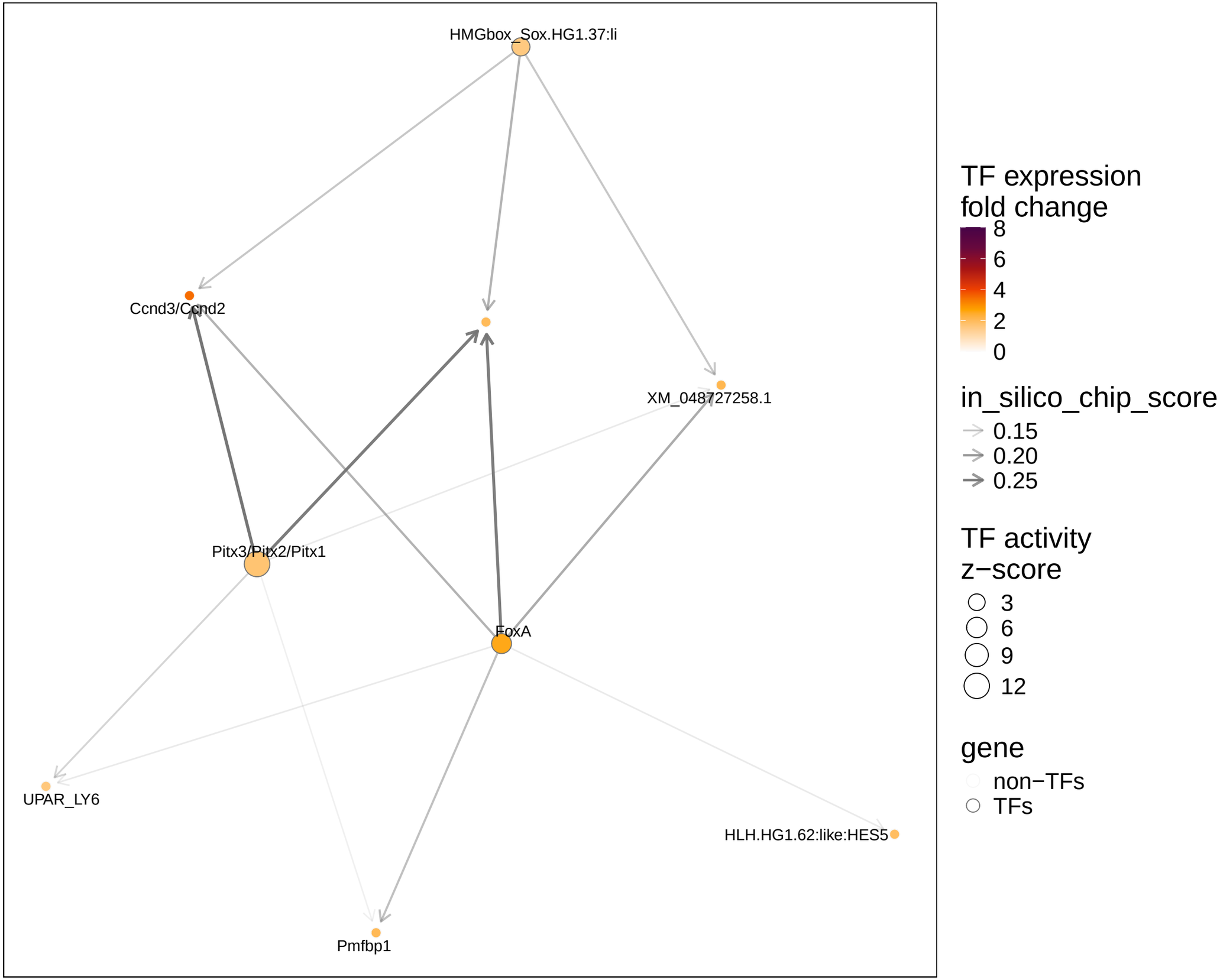
digestive filaments 1 module 3



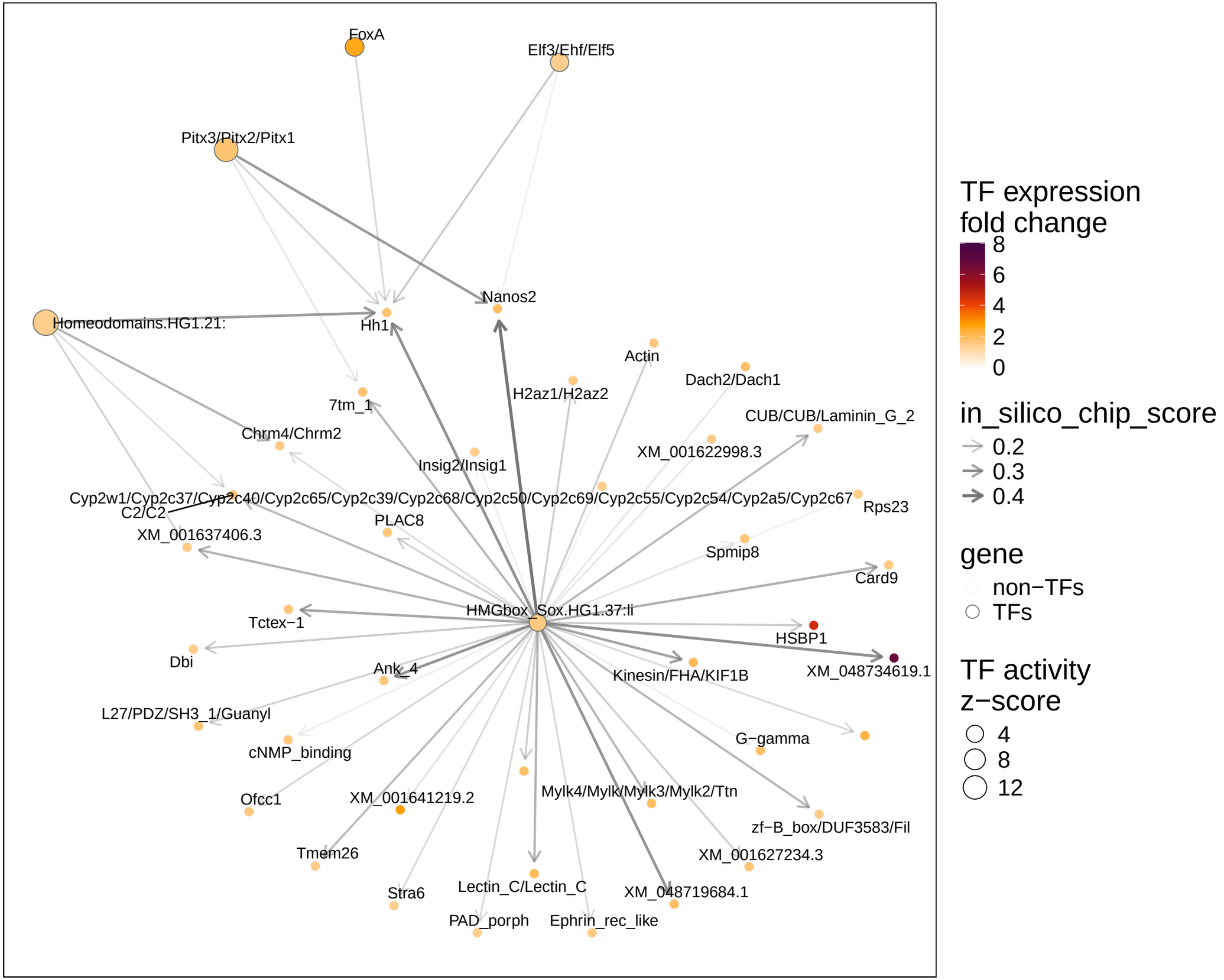
digestive filaments 1 module 4



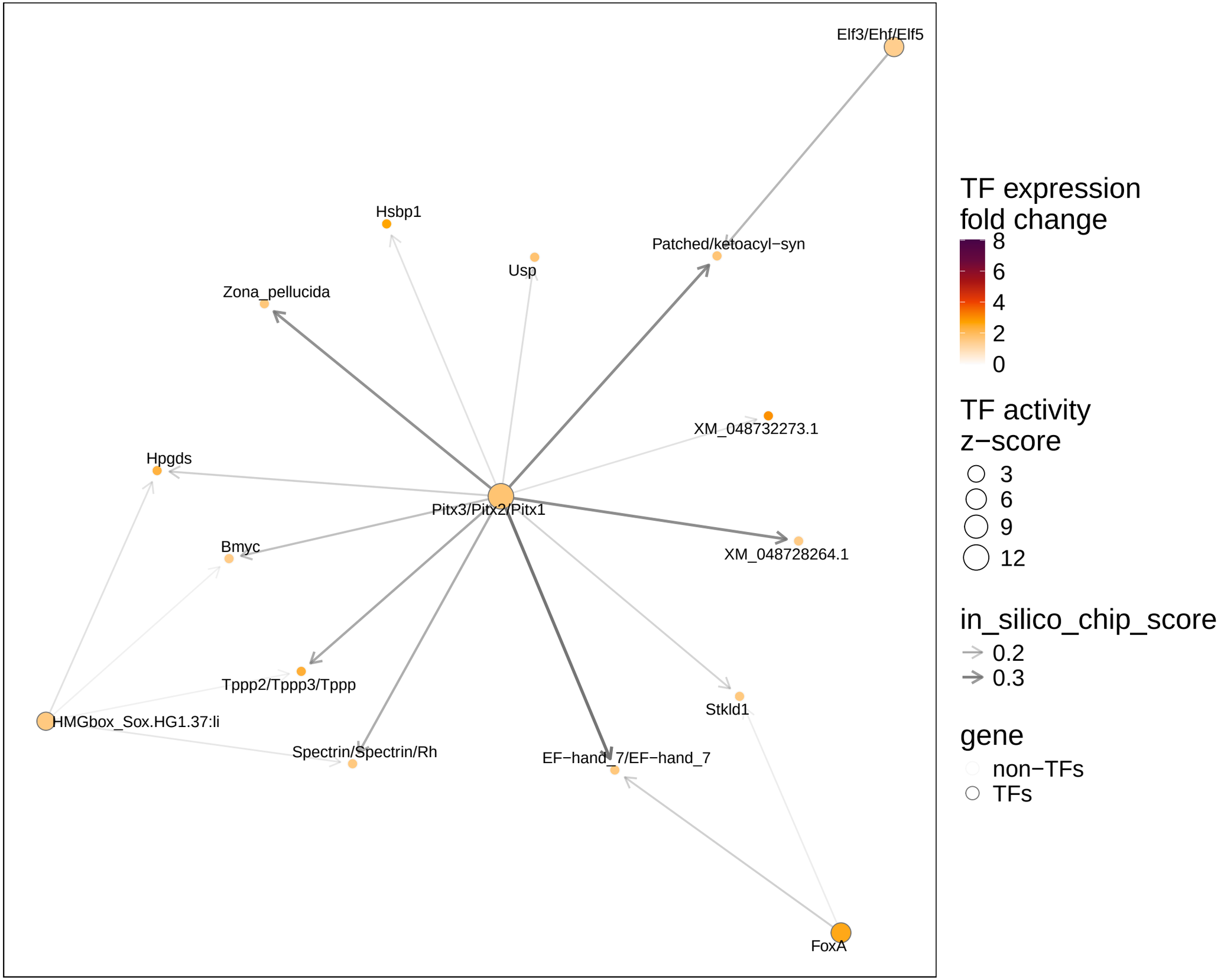
digestive filaments 1 module 5



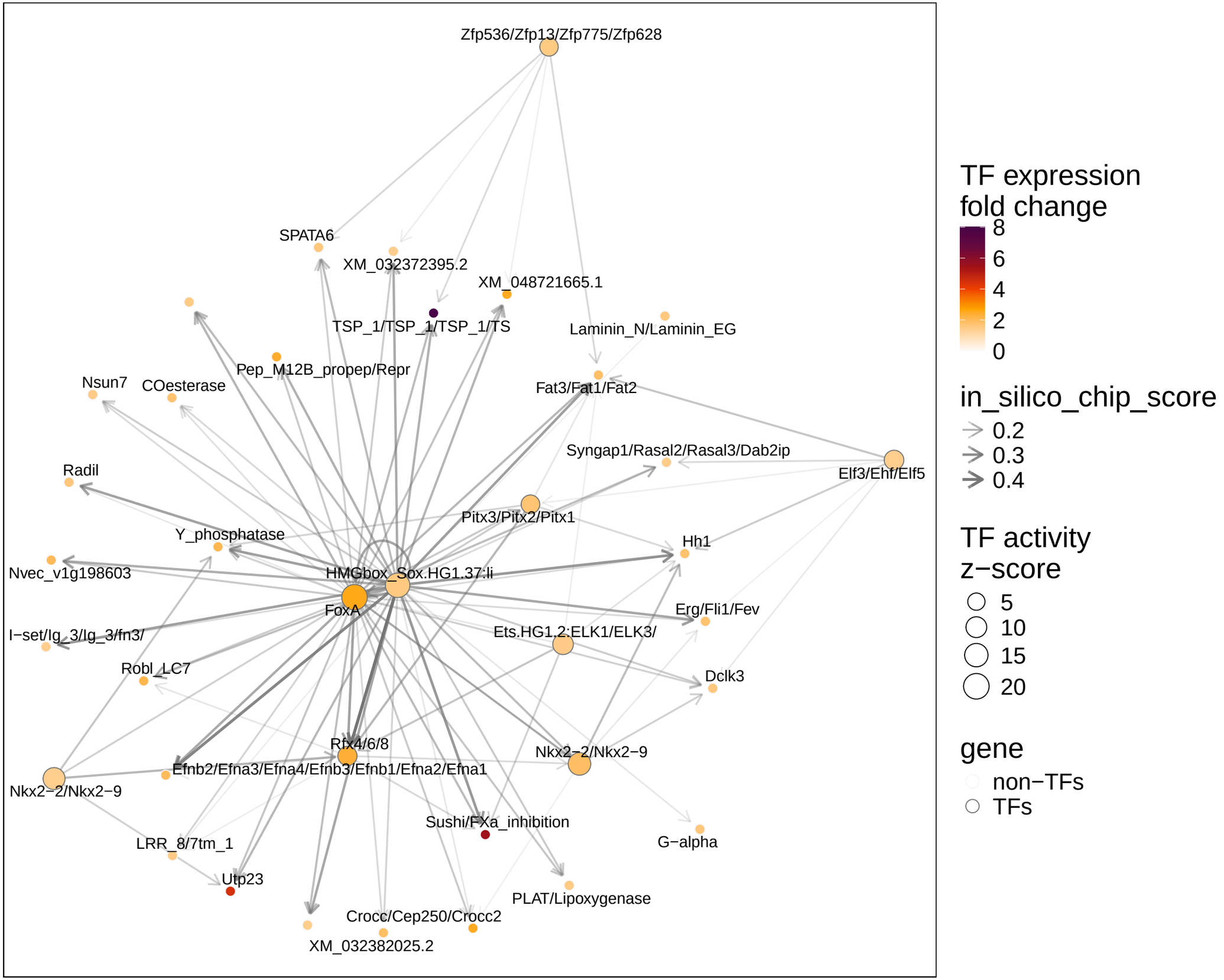
digestive filaments 1 module 6



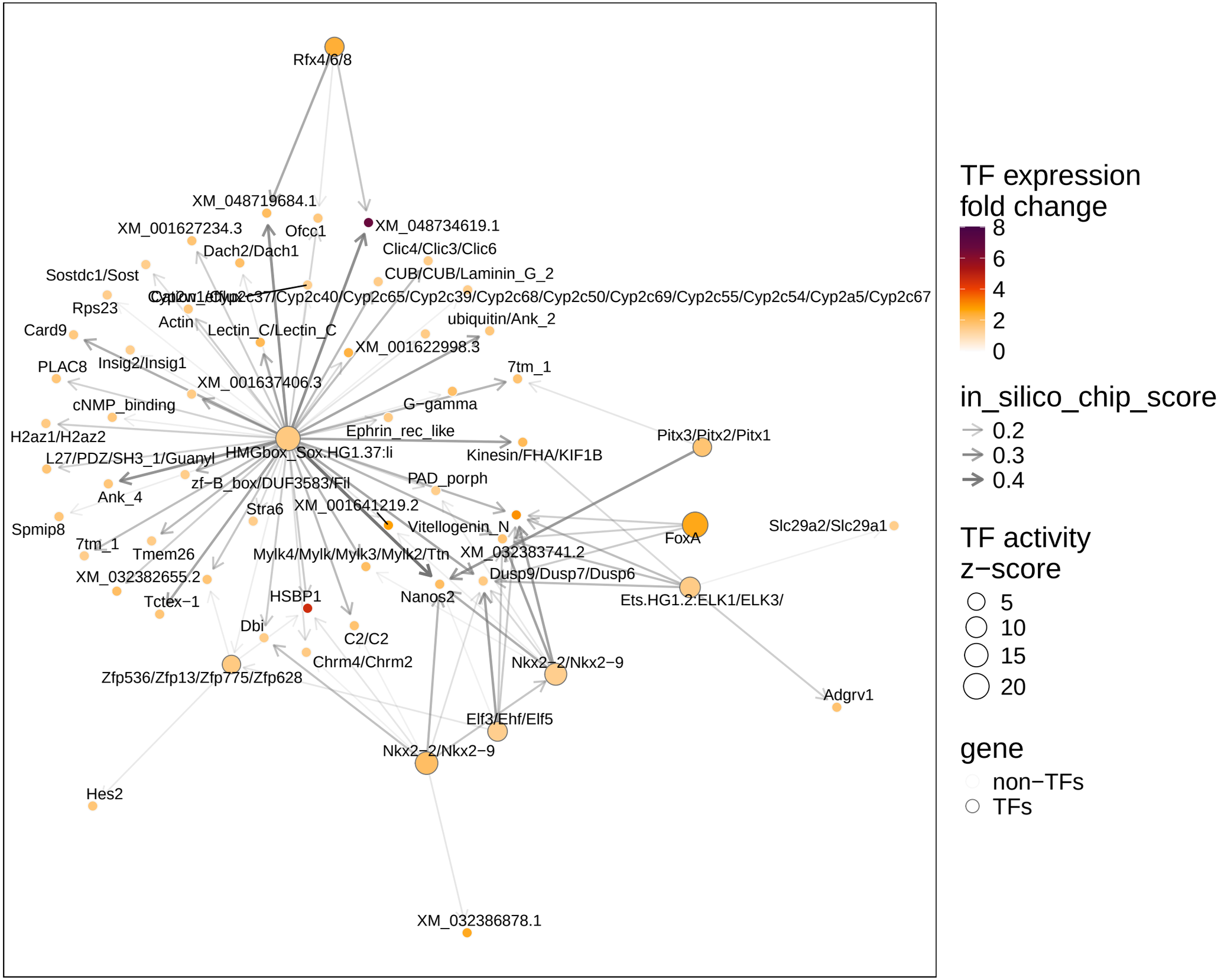
digestive filaments 1 module 7



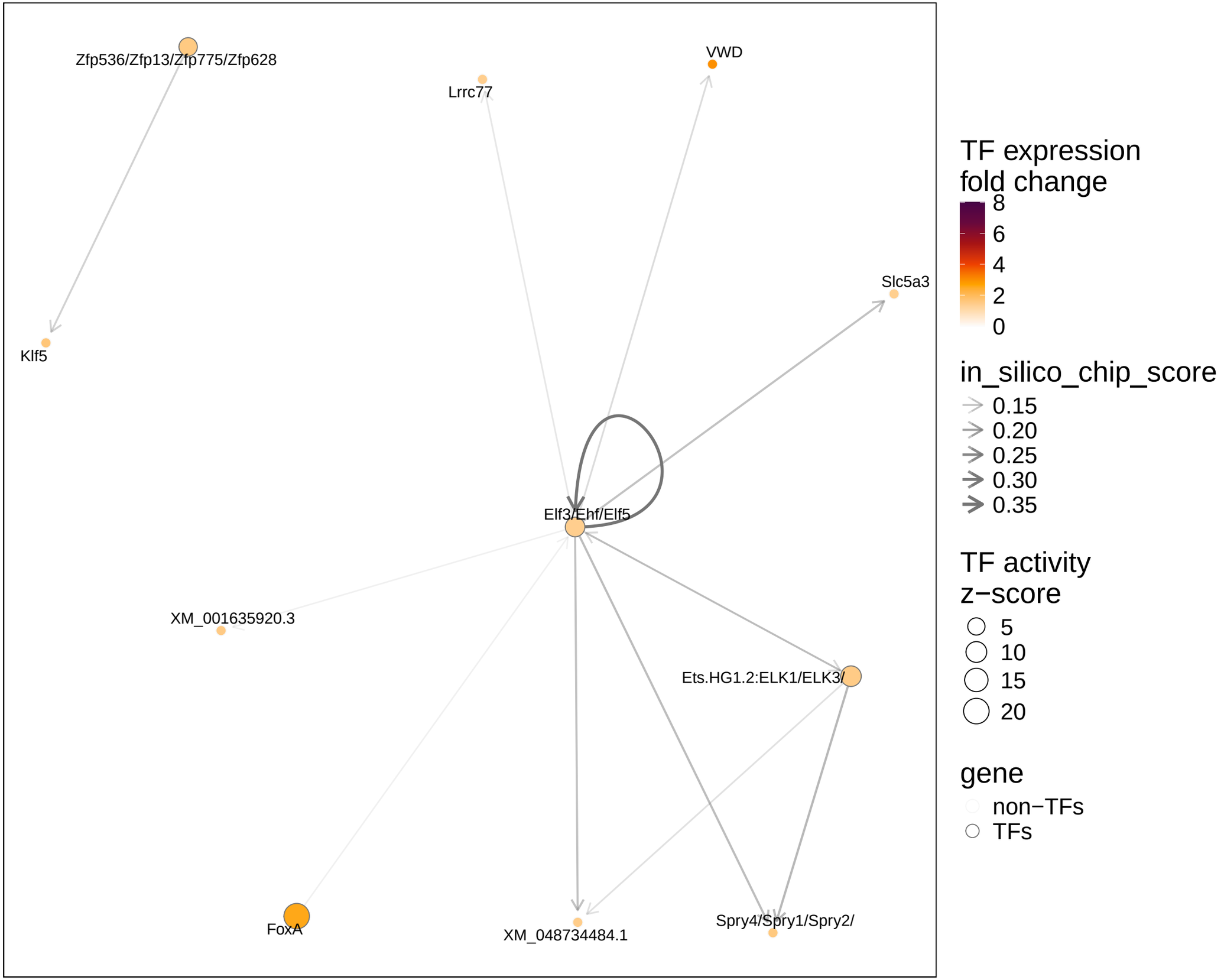
digestive filaments 2 module 1



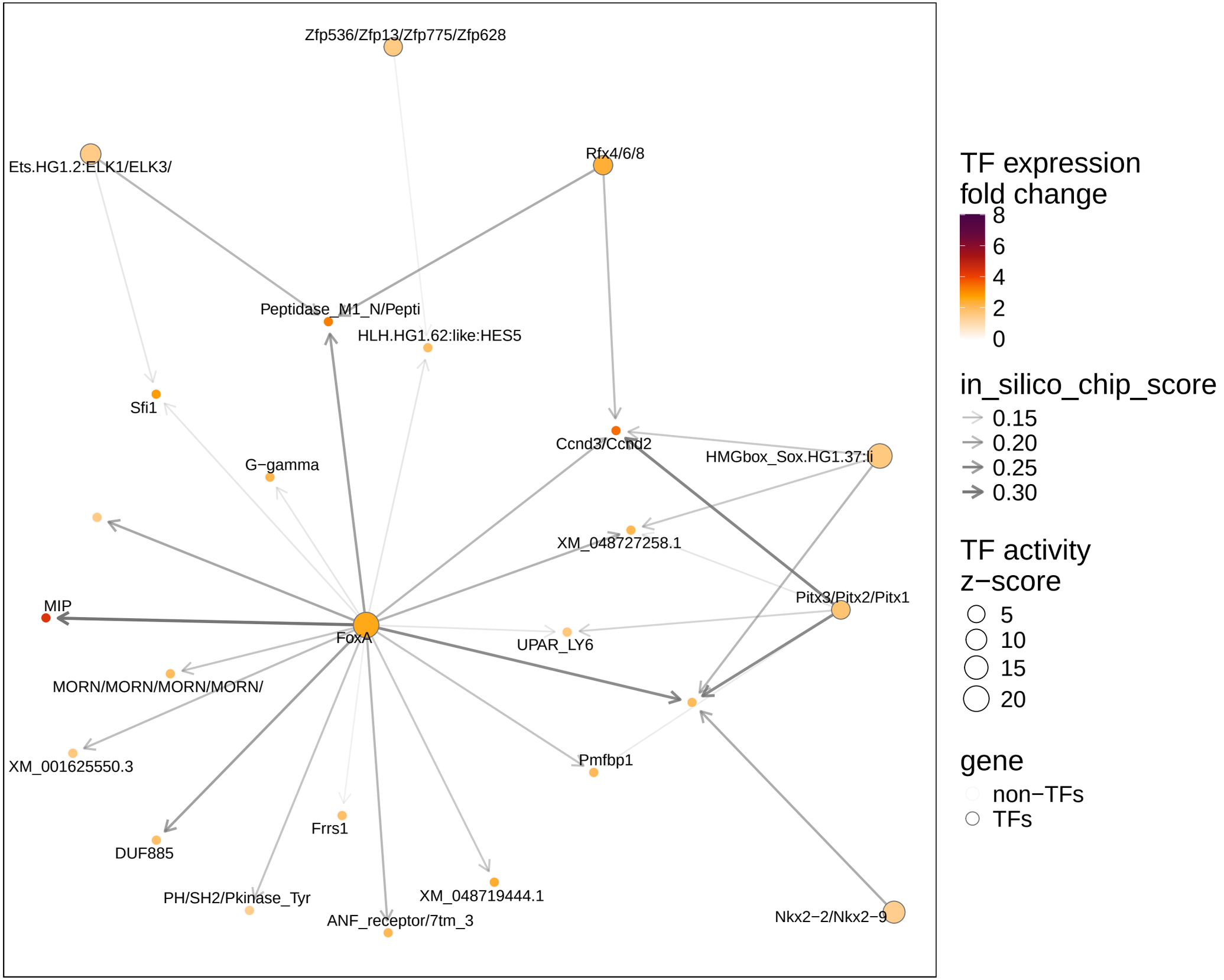
digestive filaments 2 module 2



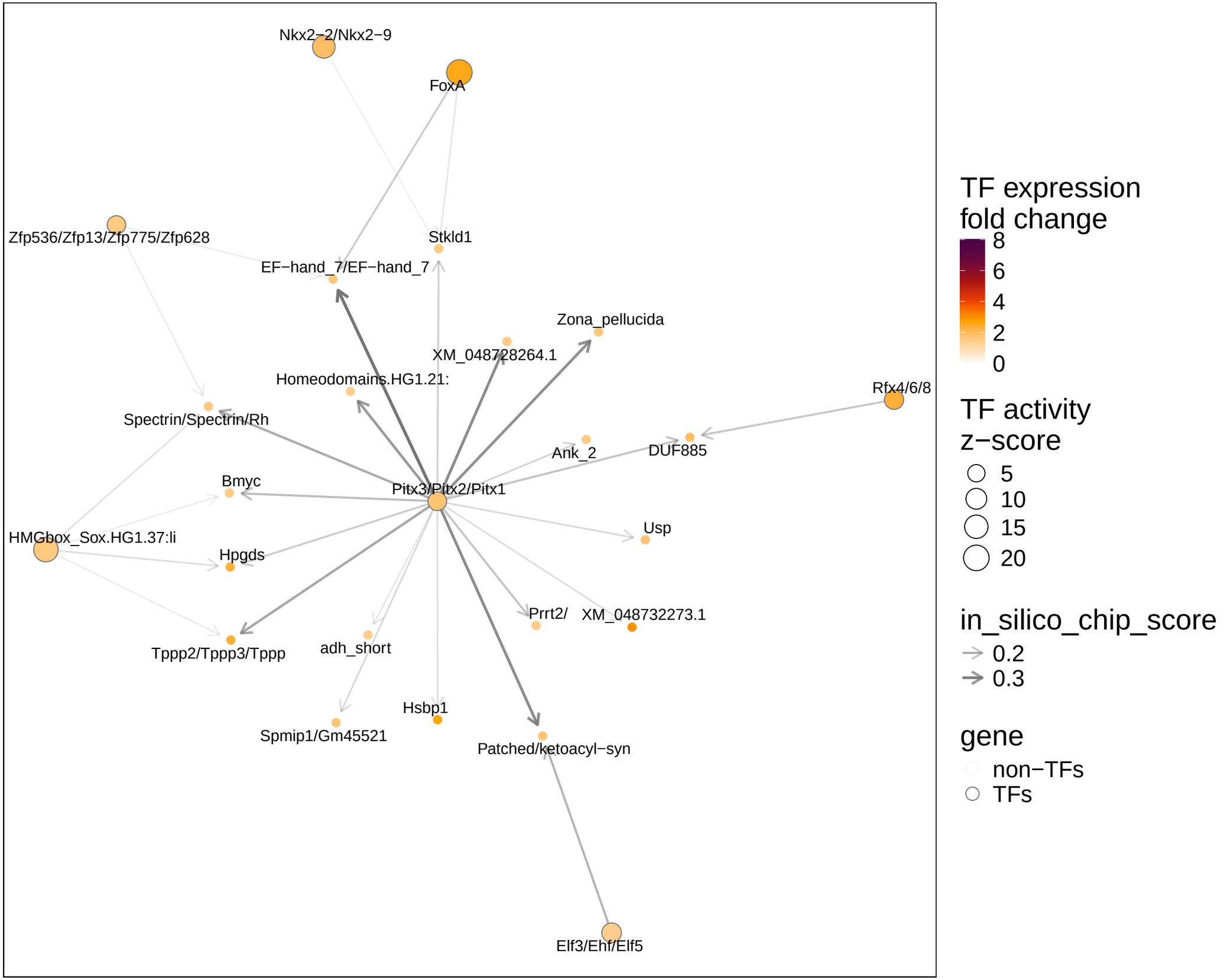
digestive filaments 2 module 3



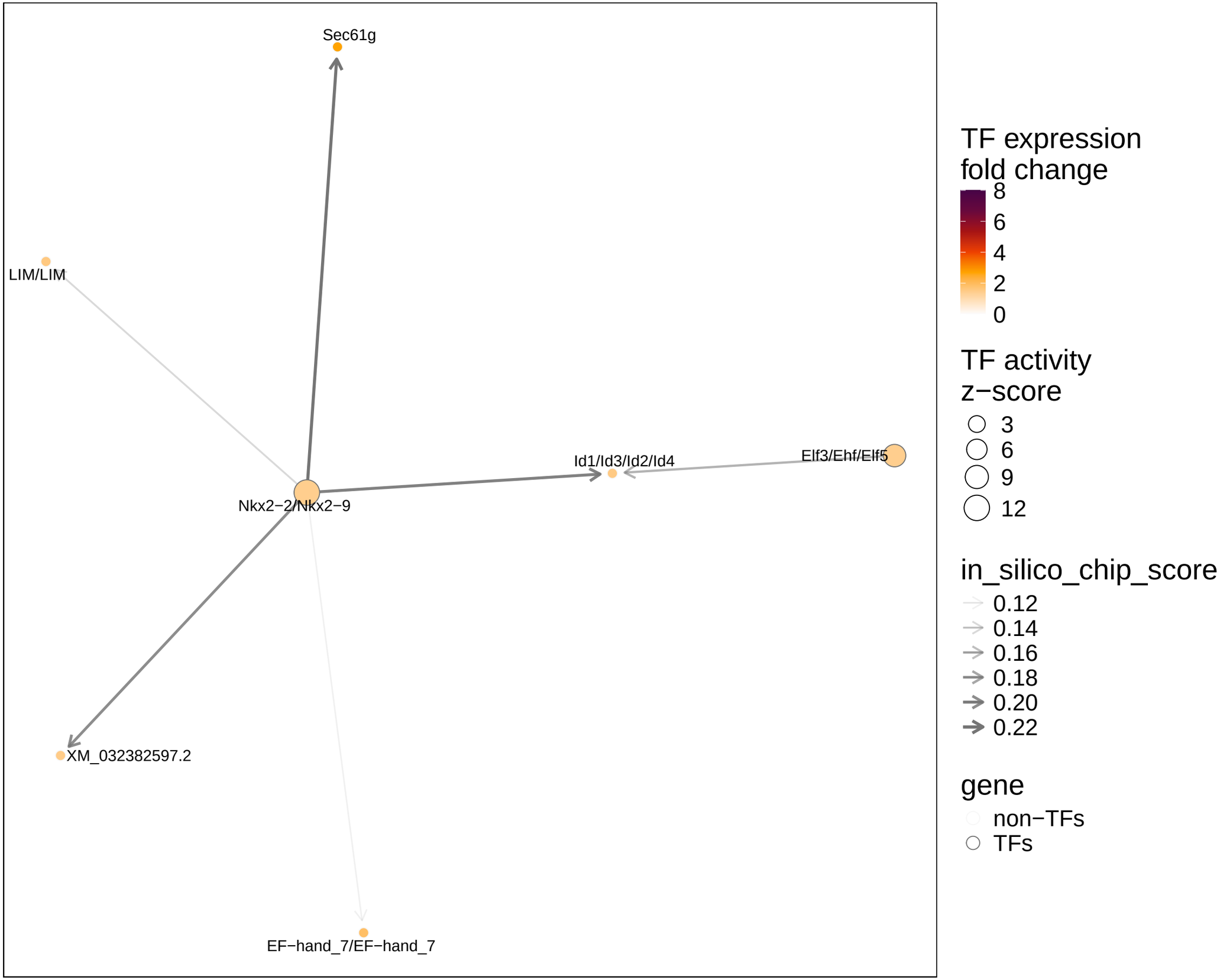
digestive filaments 2 module 4



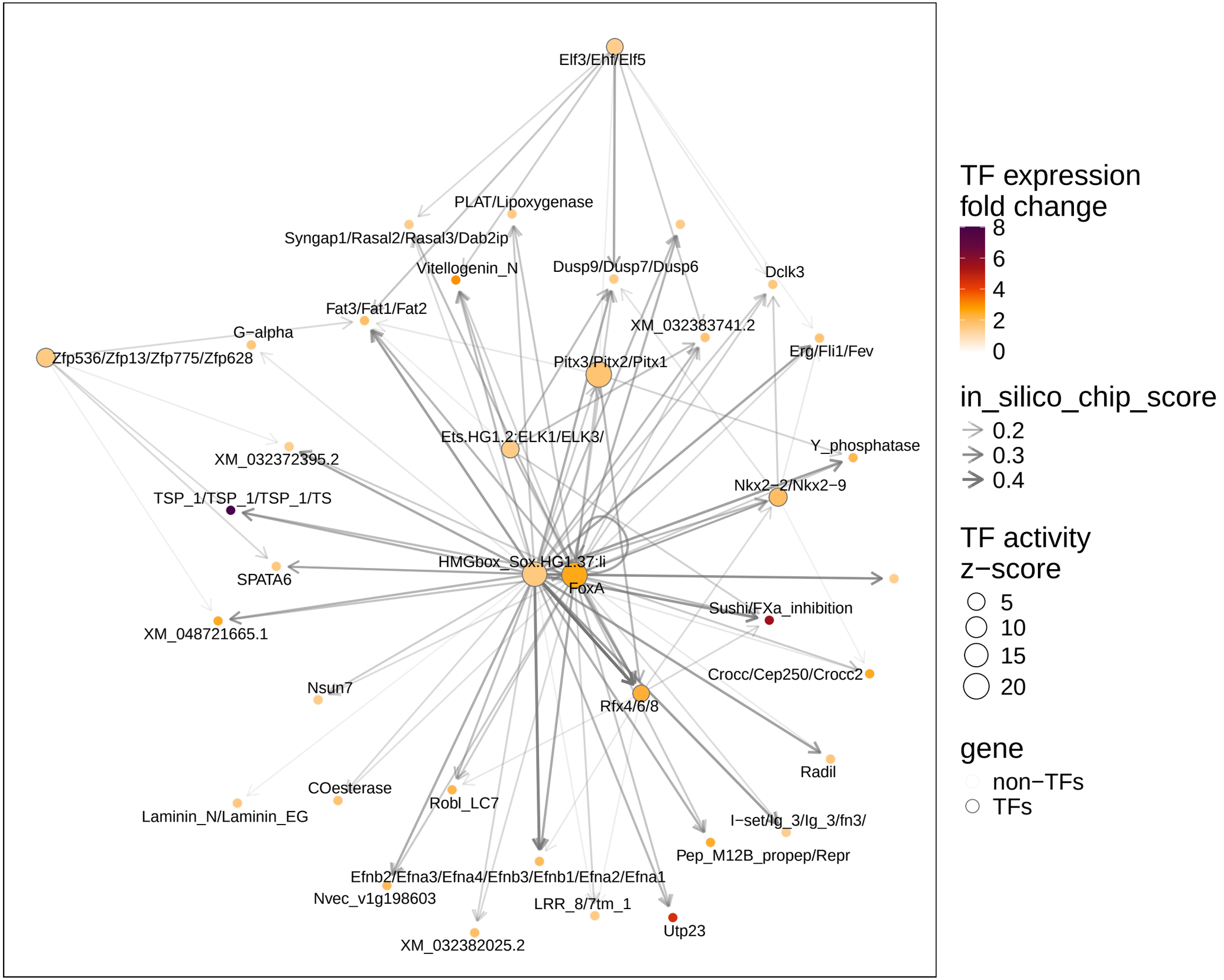
digestive filaments 2 module 5



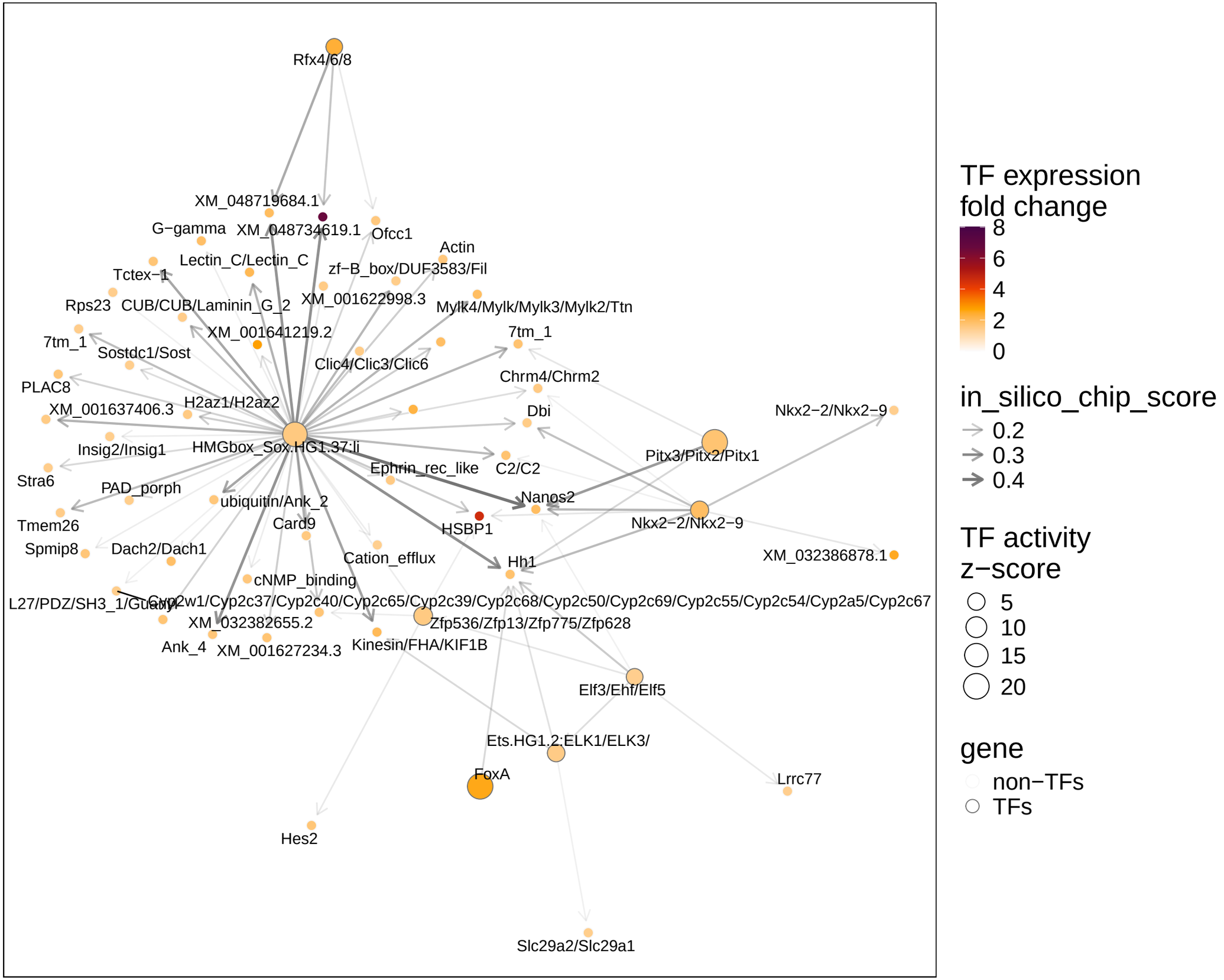
digestive filaments 2 module 6



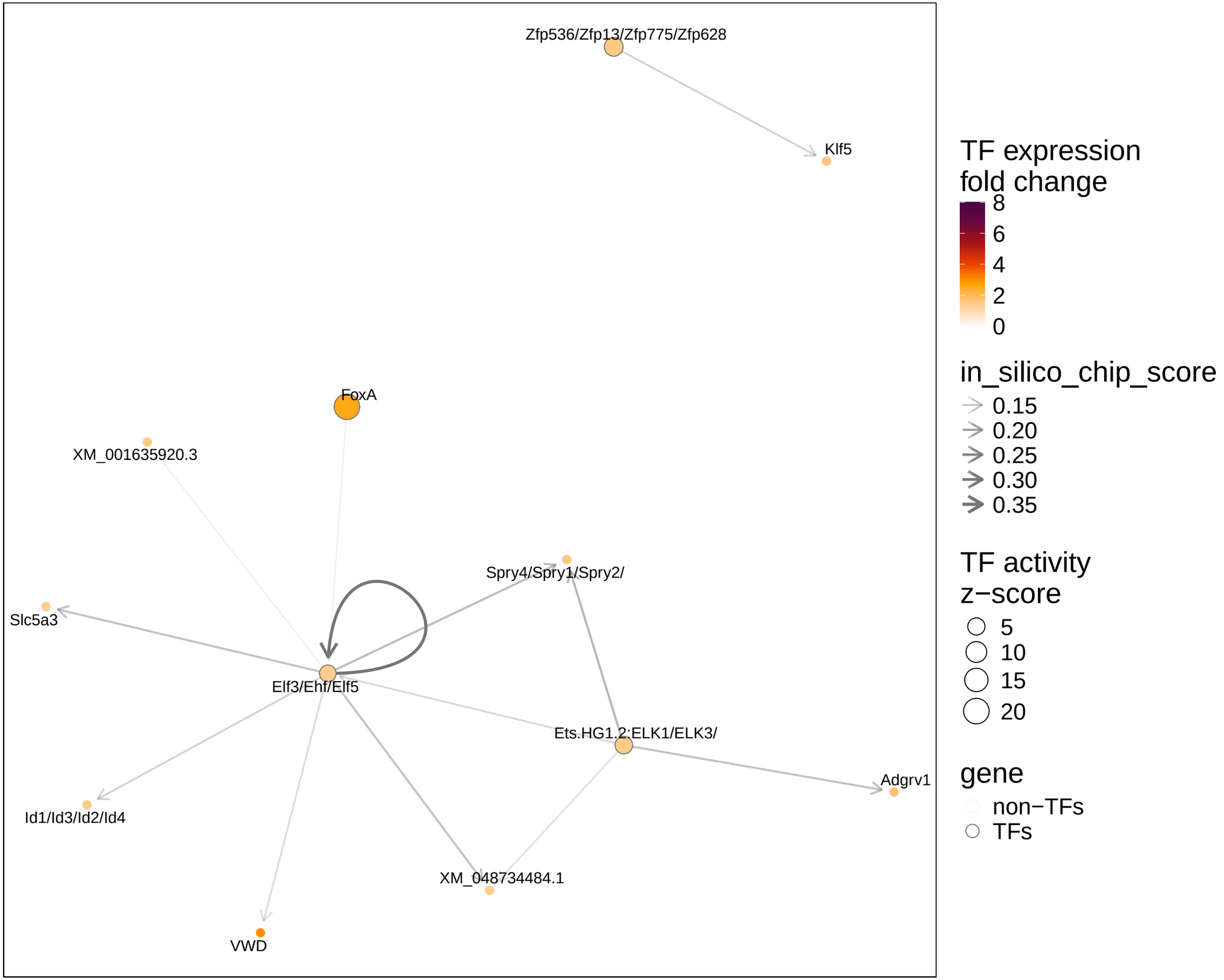
digestive filaments 3 module 1



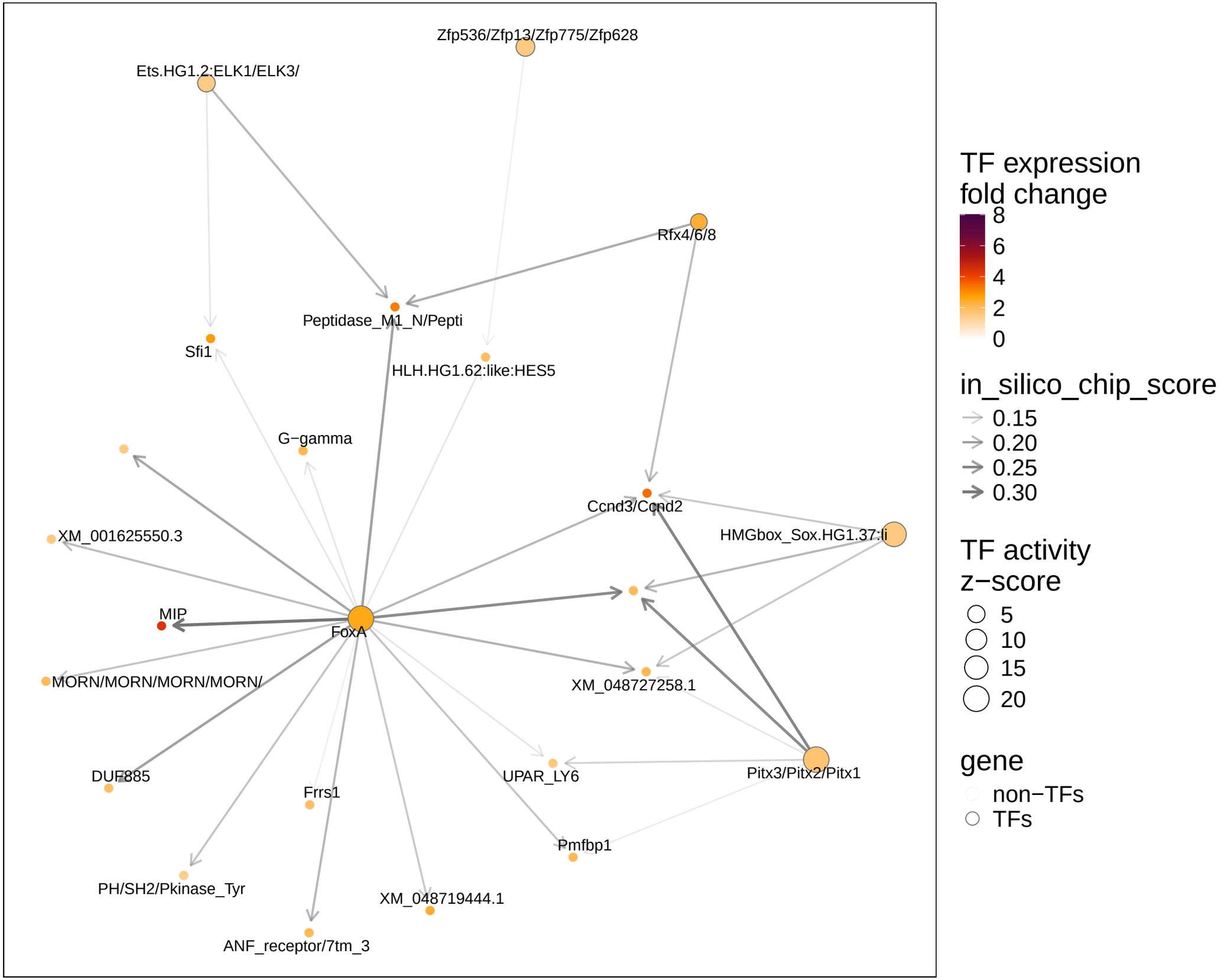
digestive filaments 3 module 2



digestive filaments 3 module 3



digestive filaments 3 module 4



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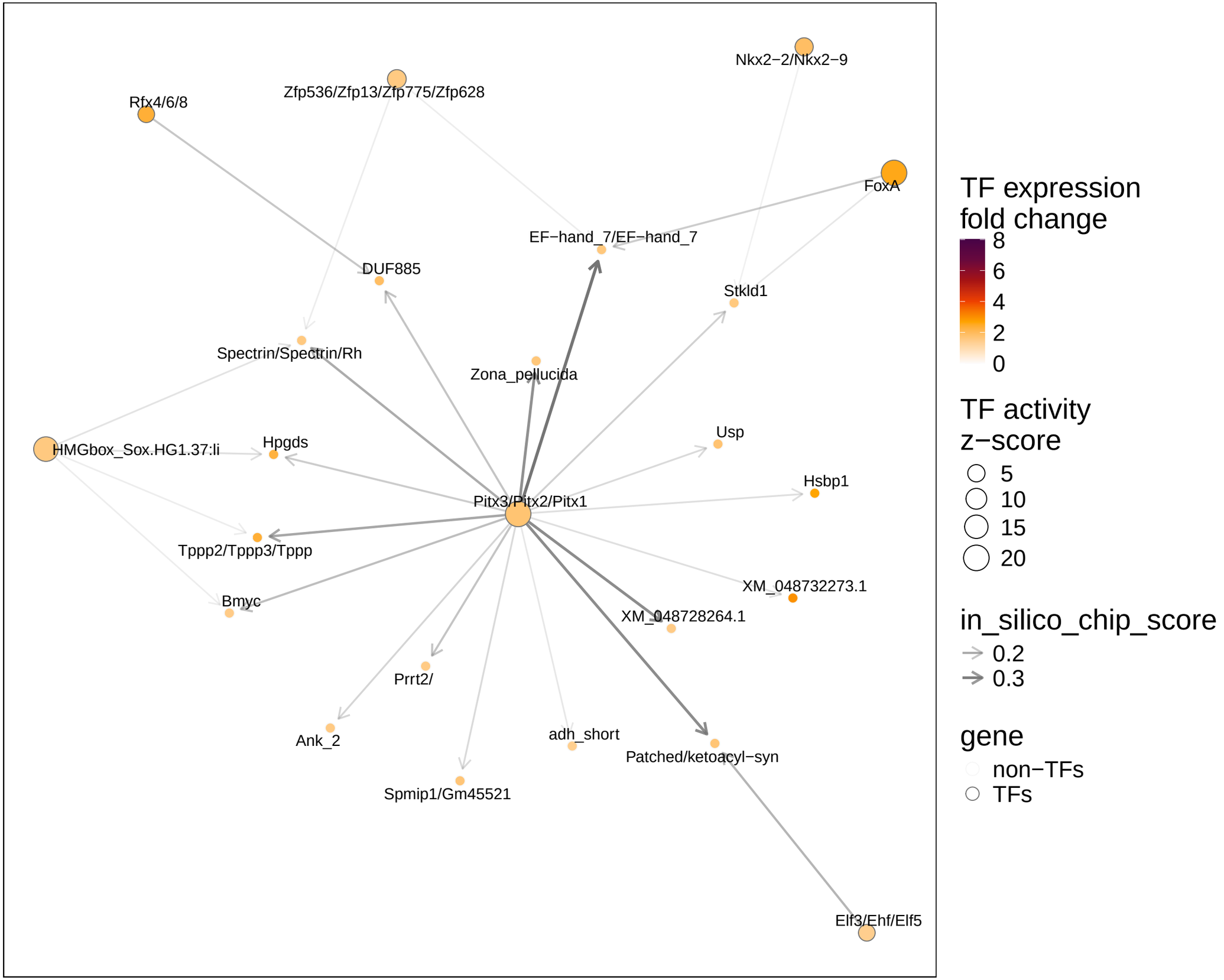

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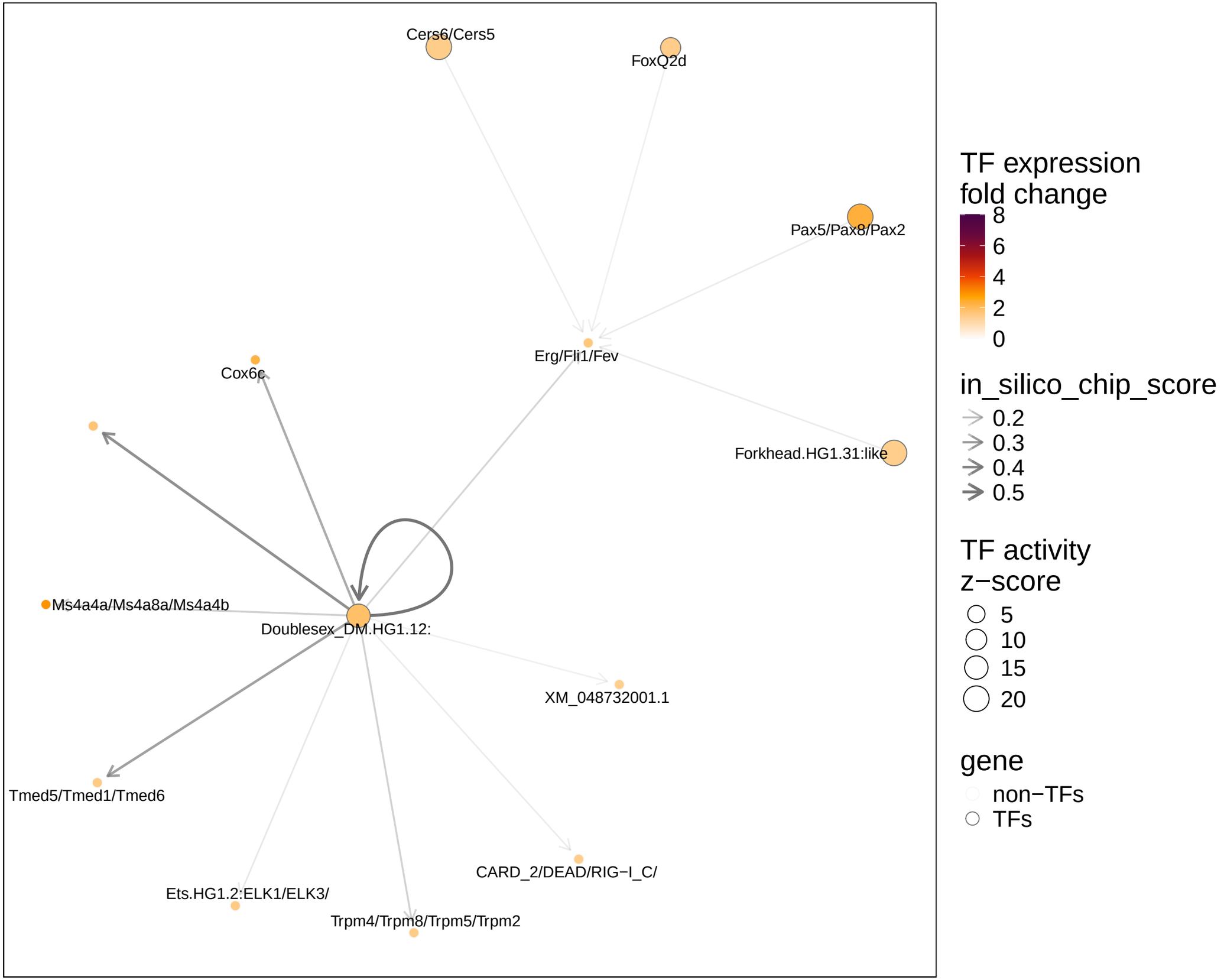

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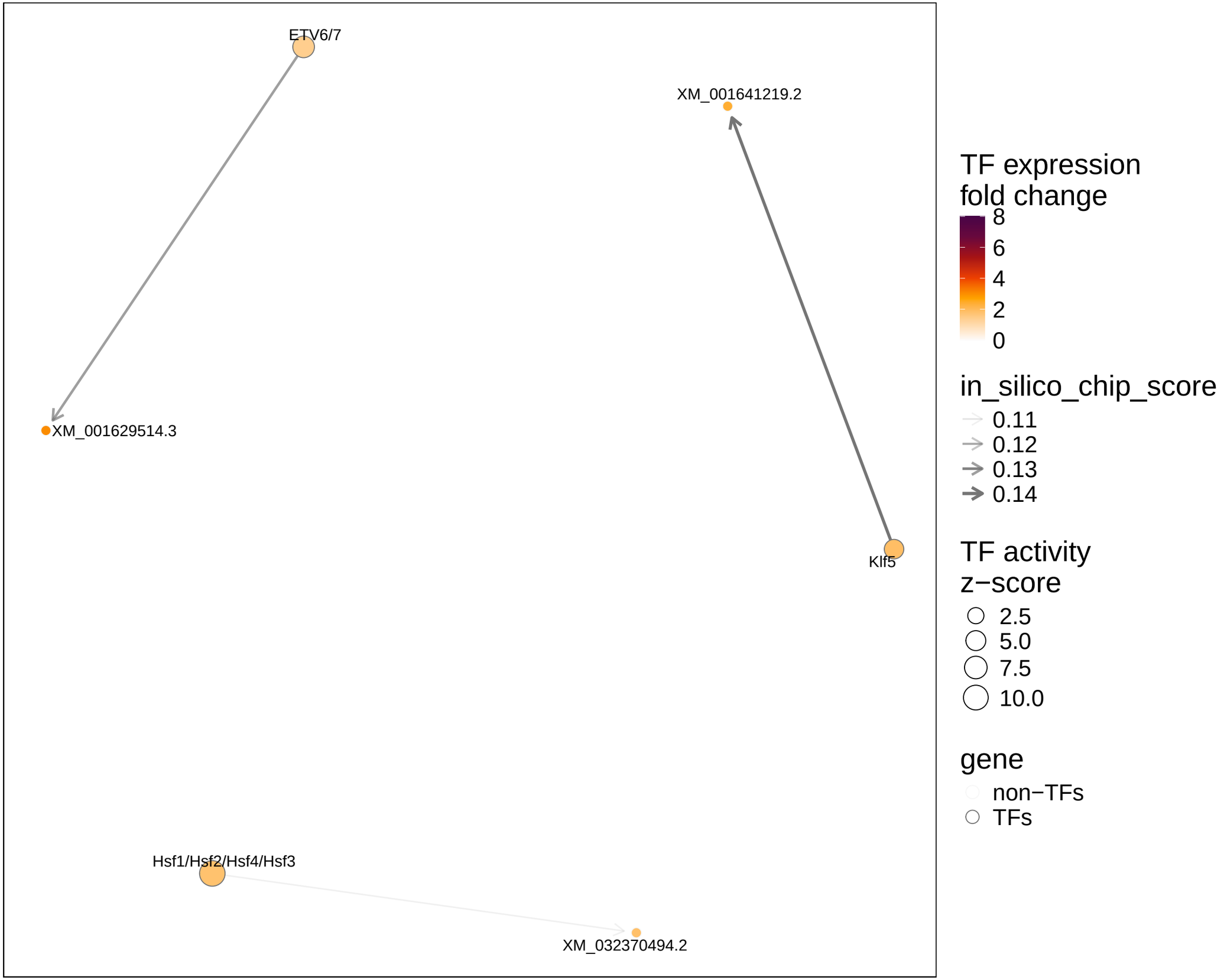

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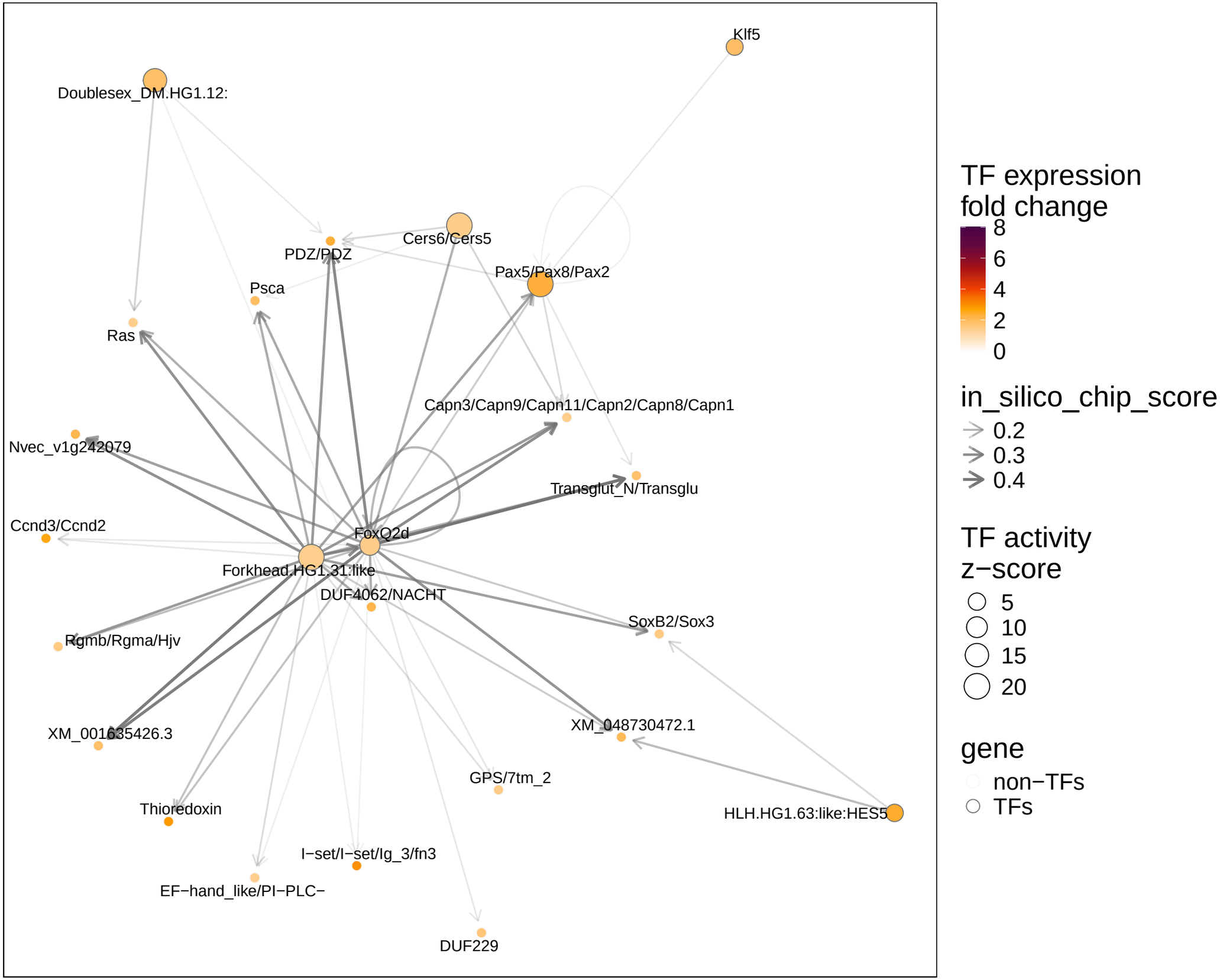

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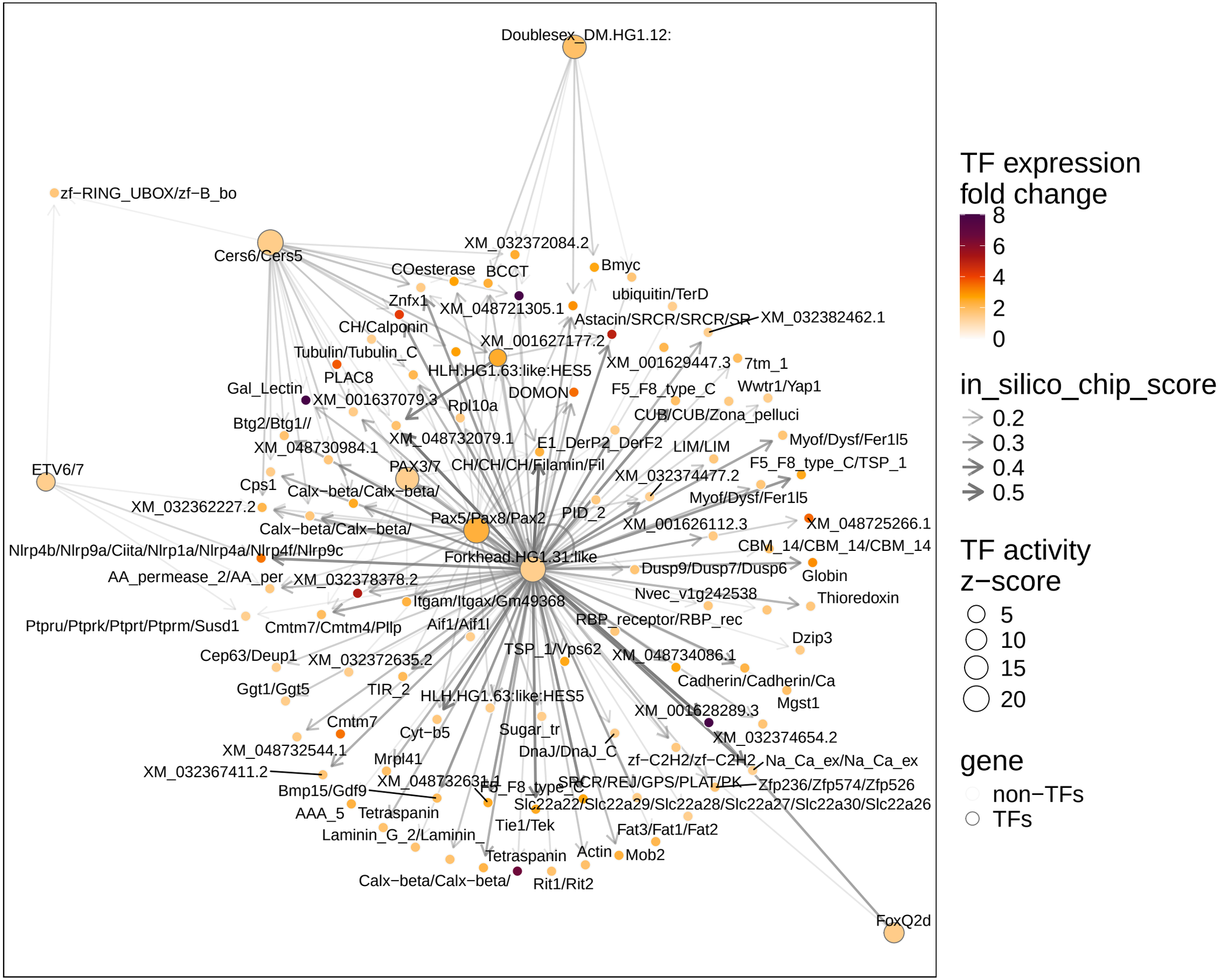

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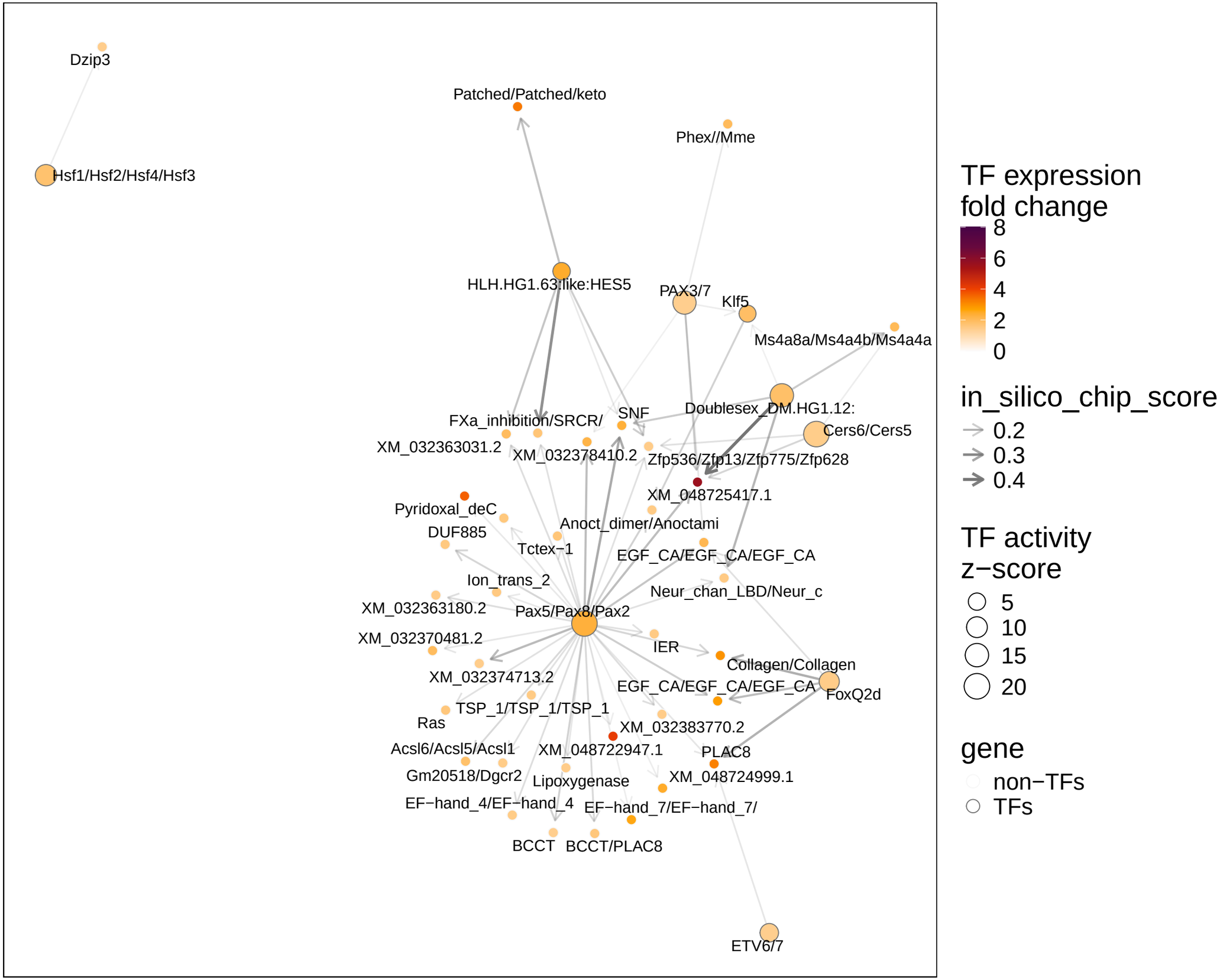

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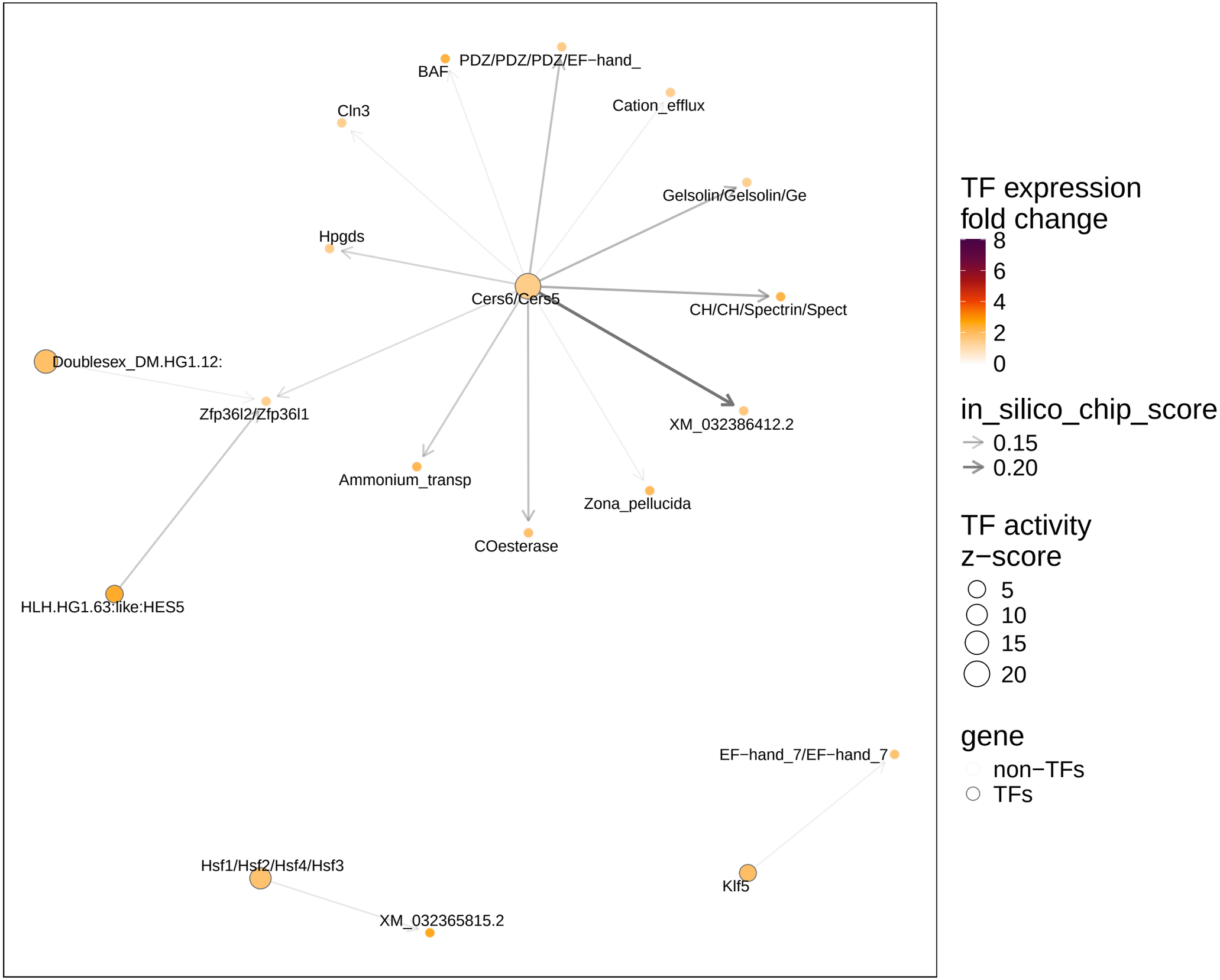

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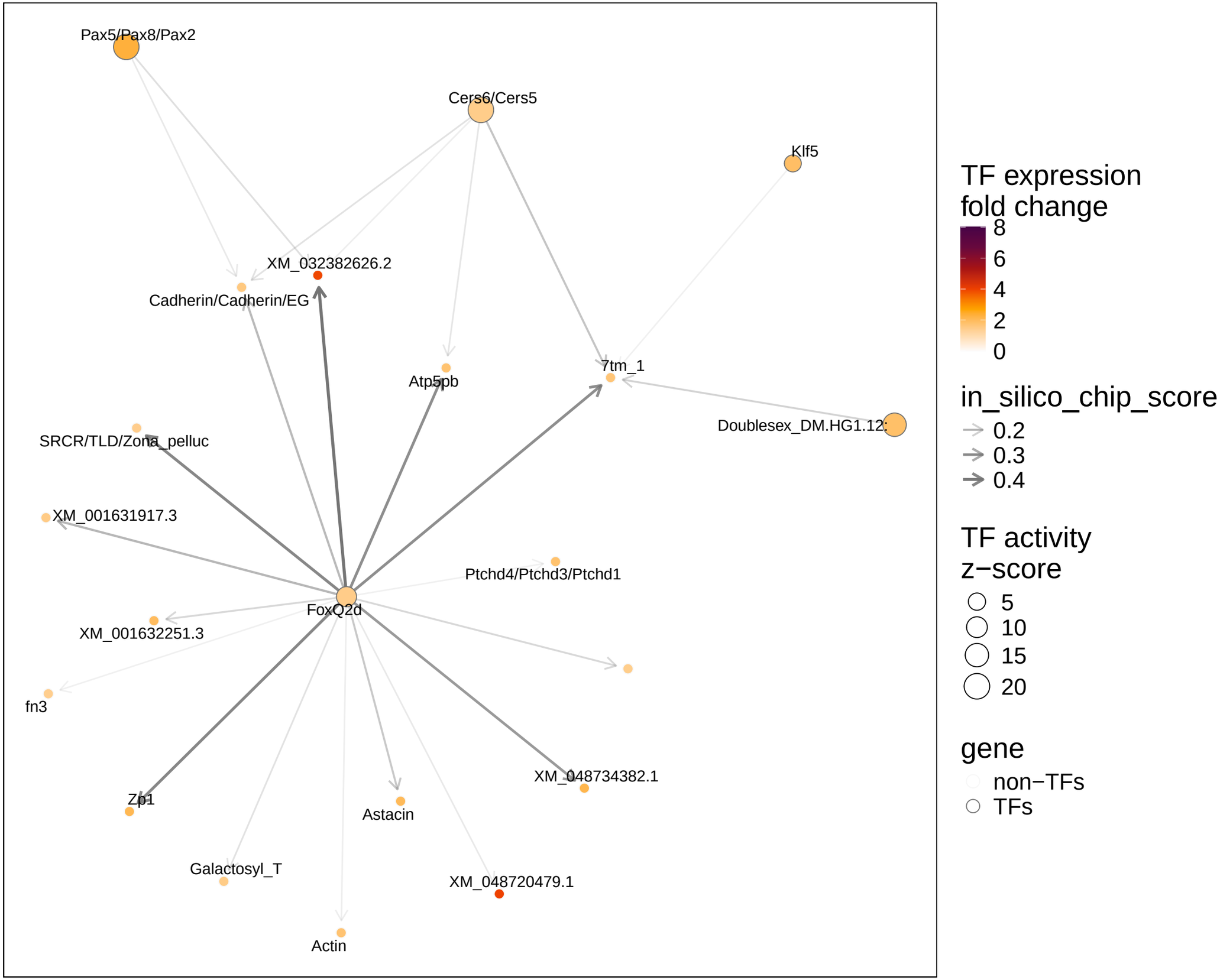

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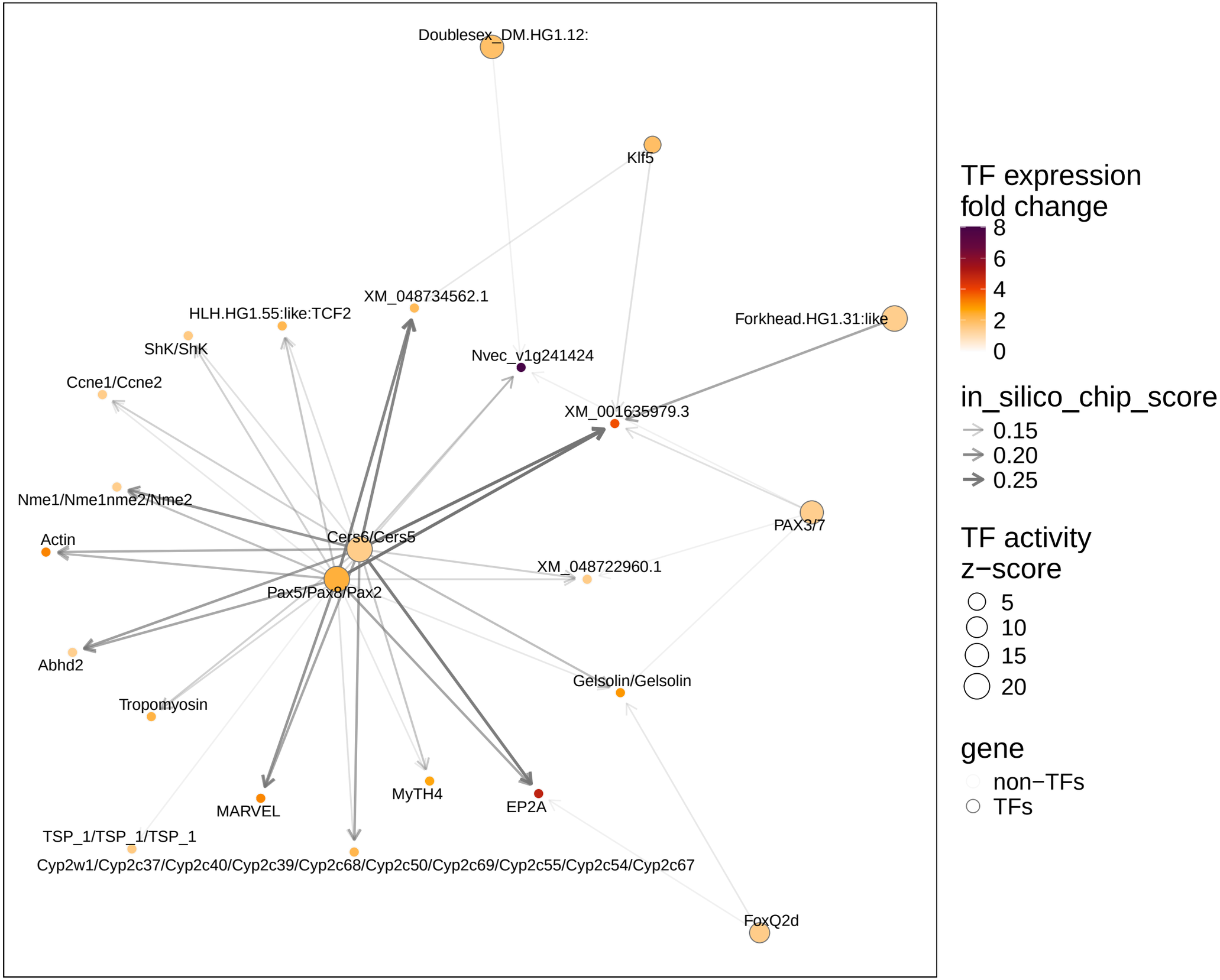

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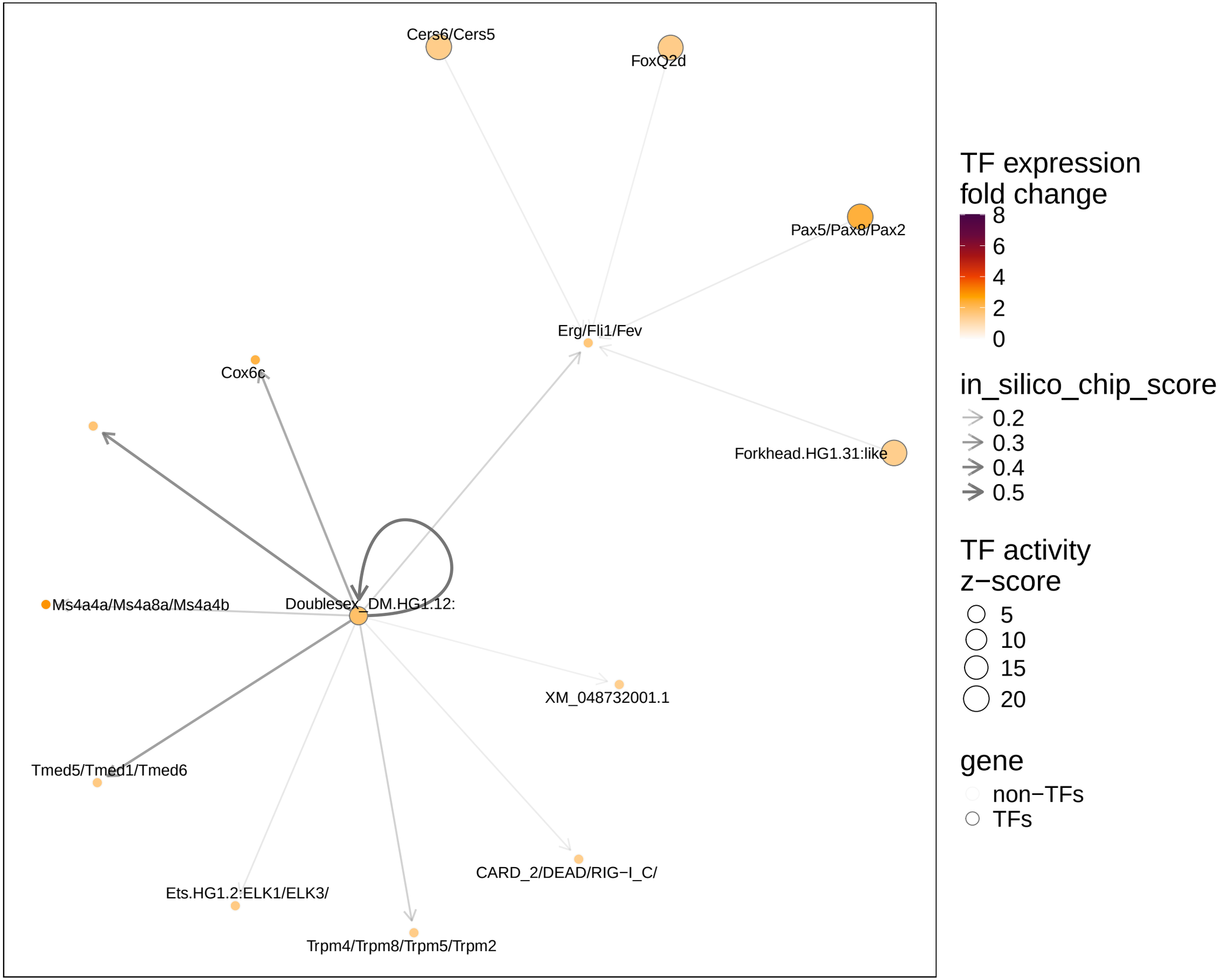

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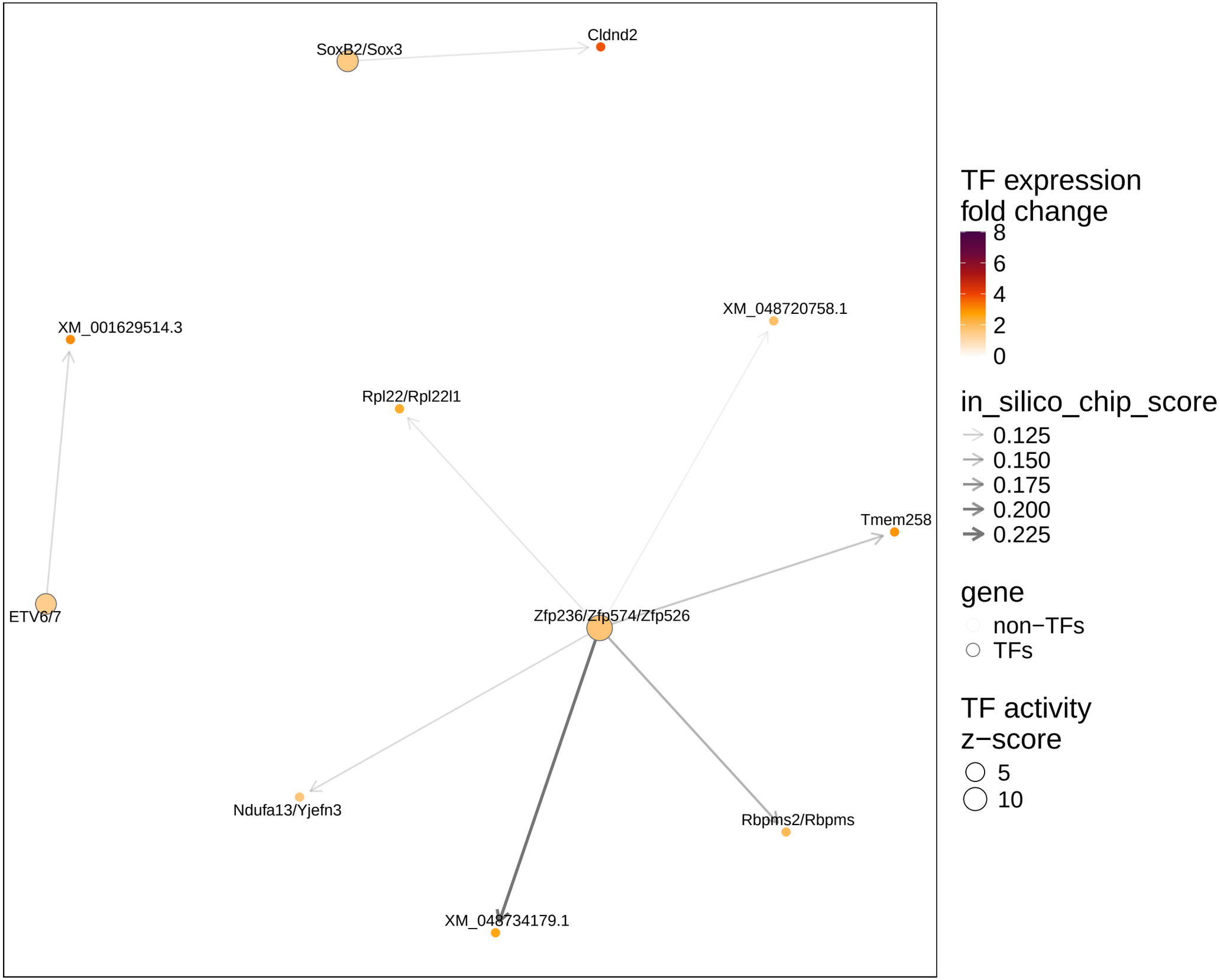

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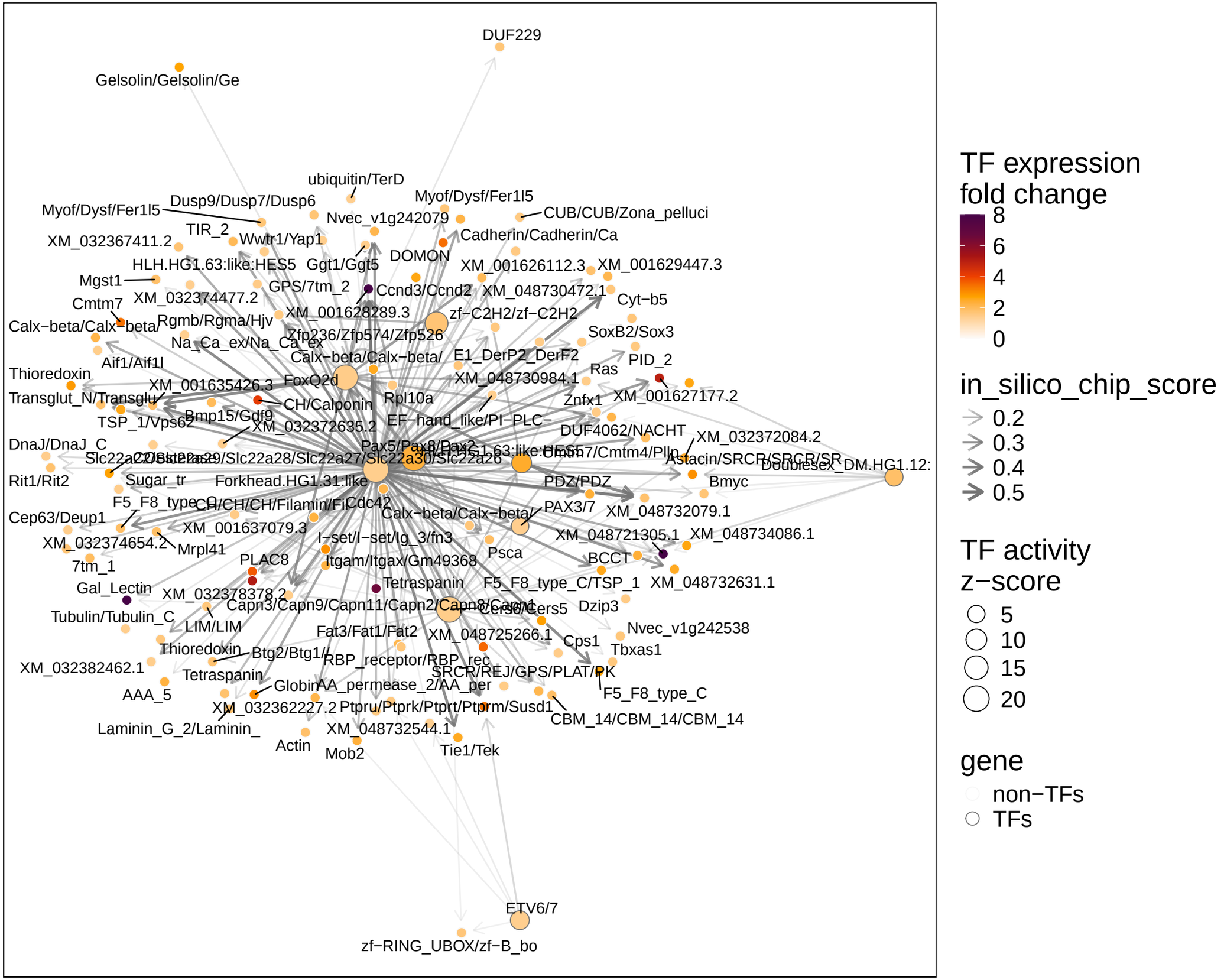

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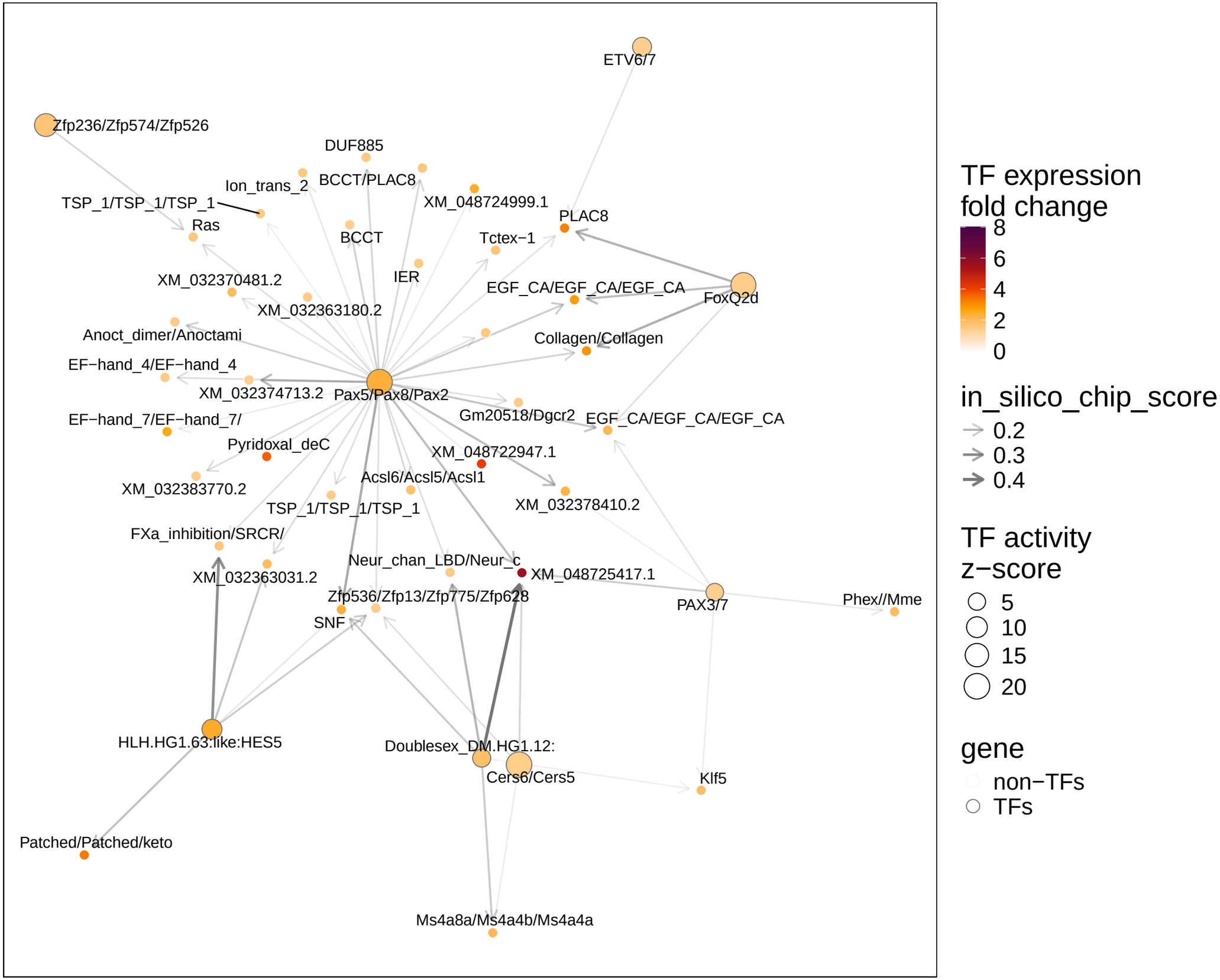

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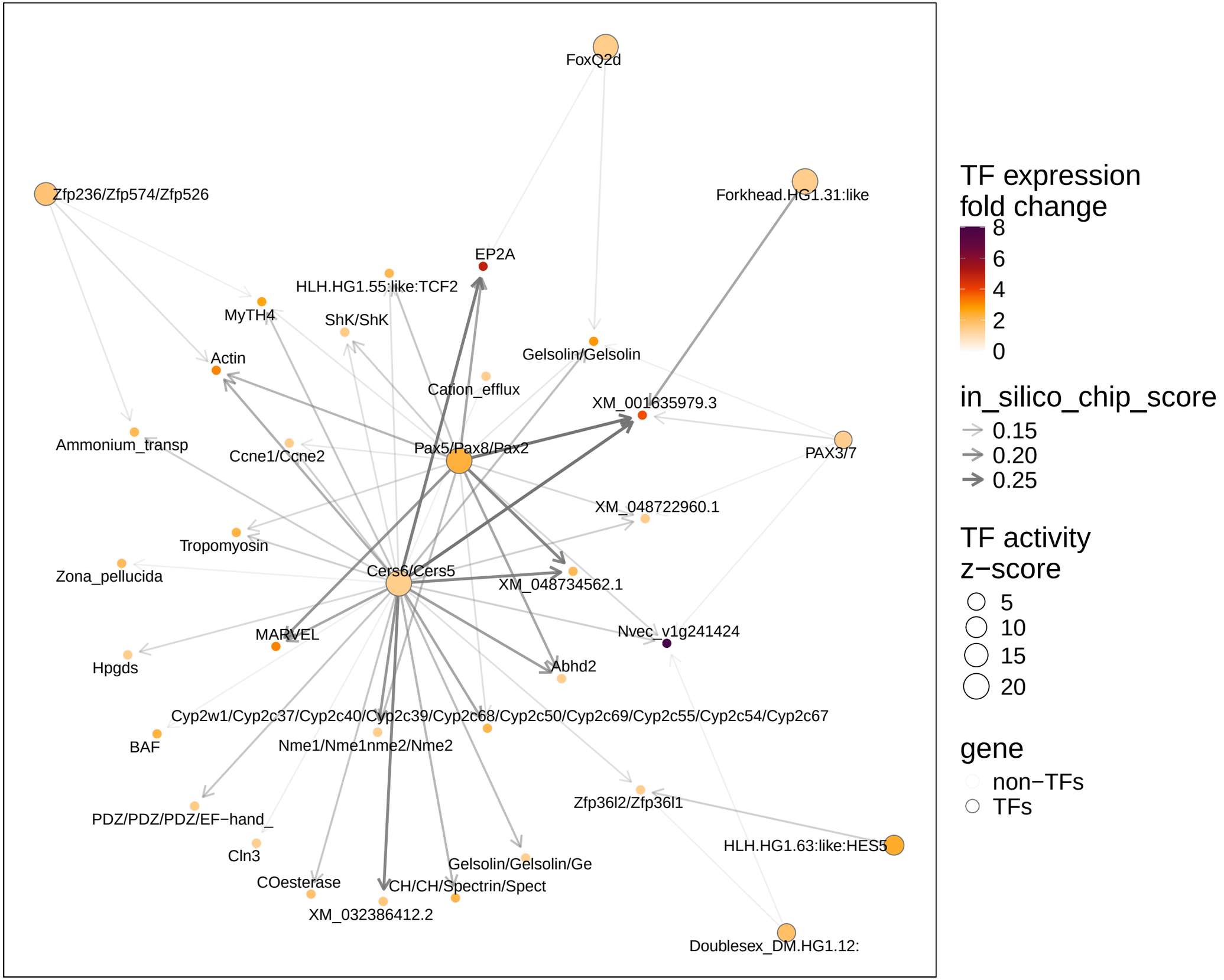

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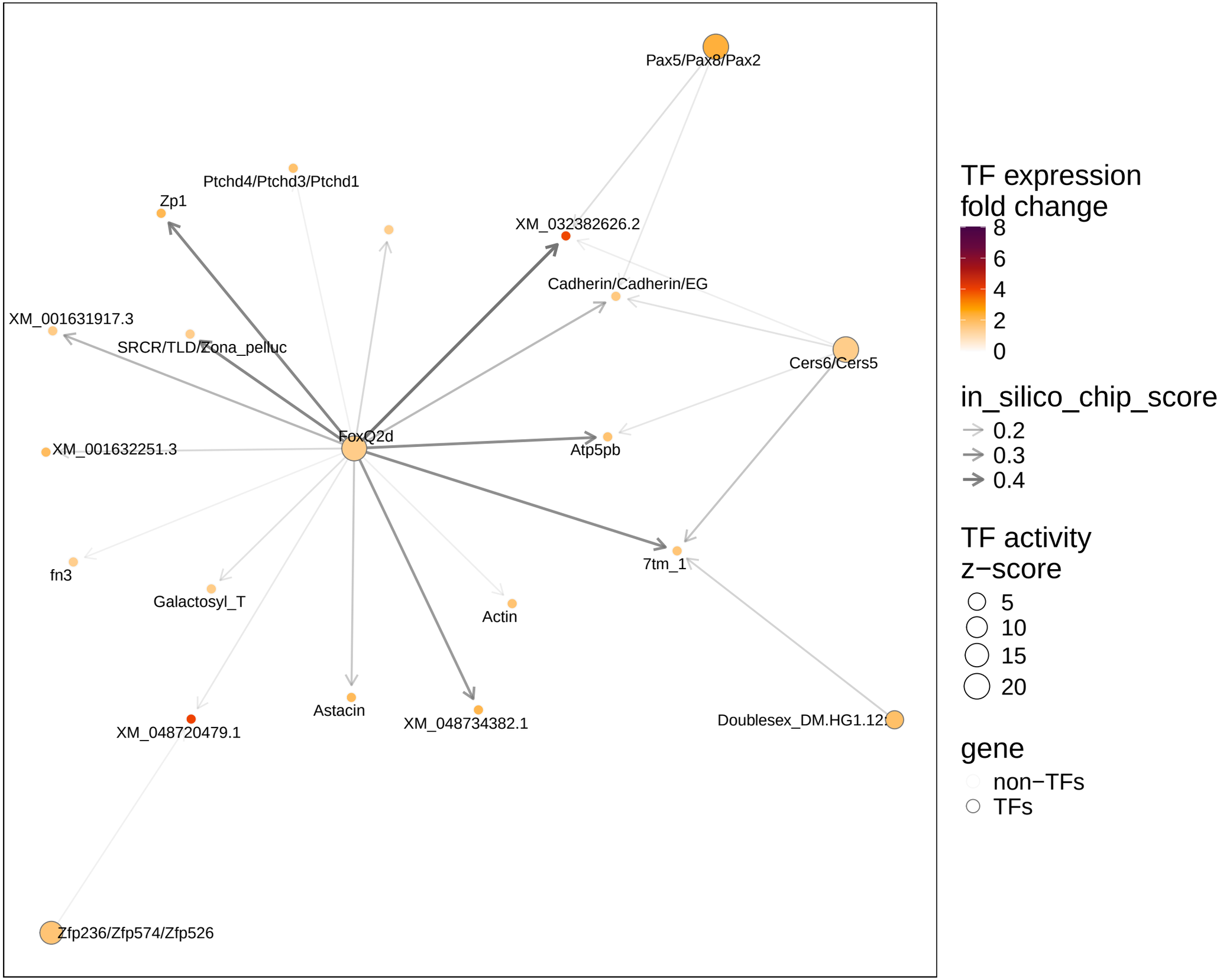

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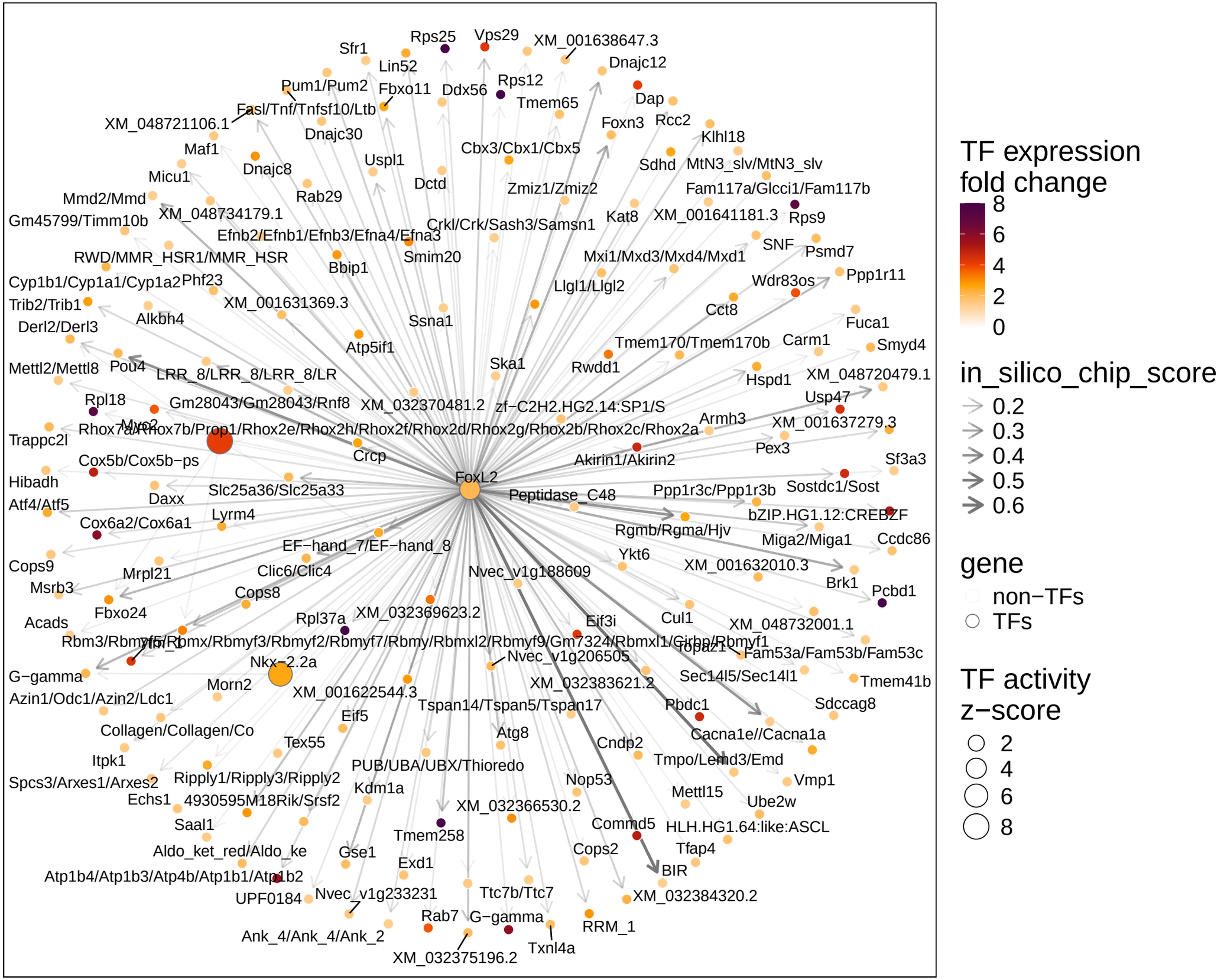

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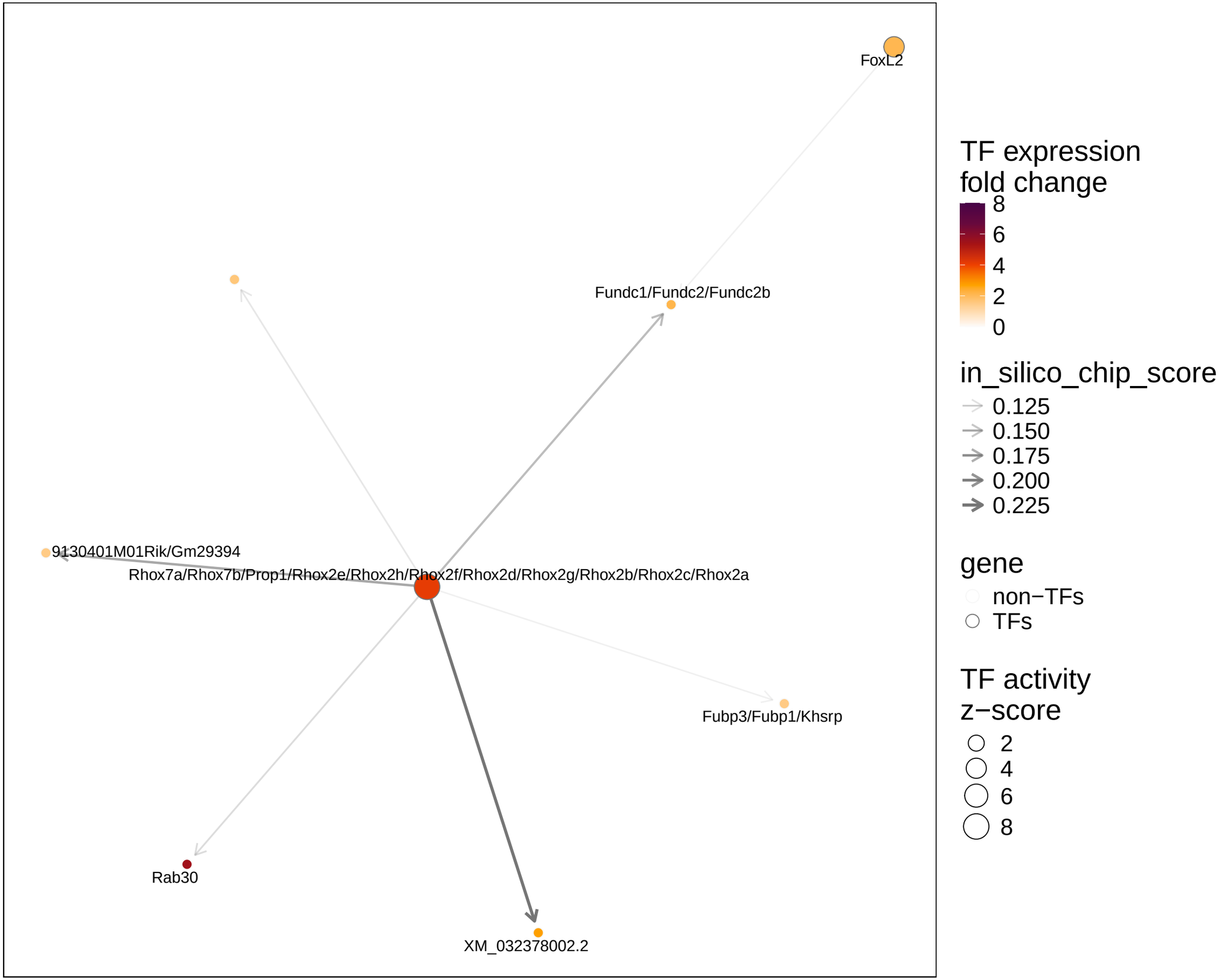

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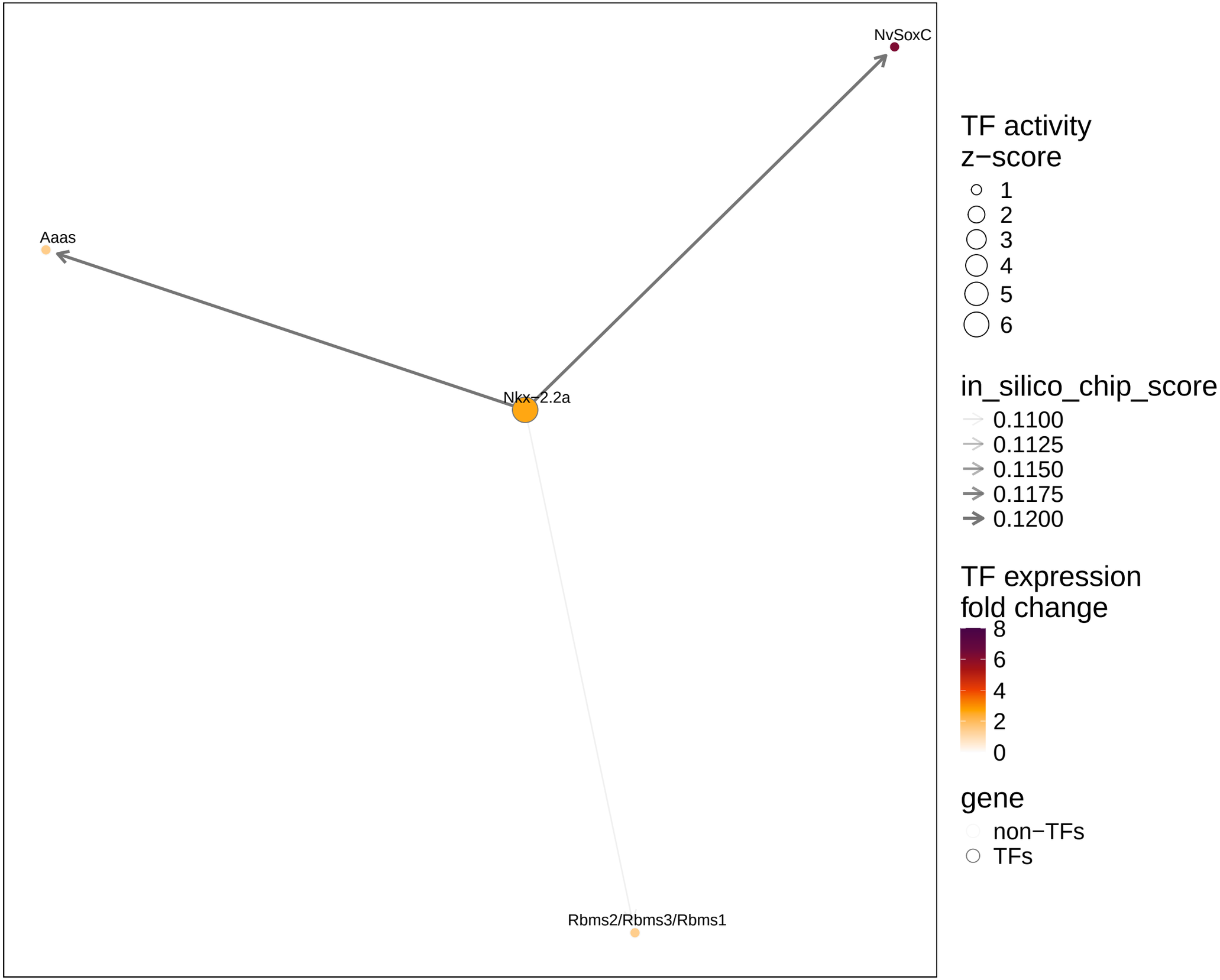

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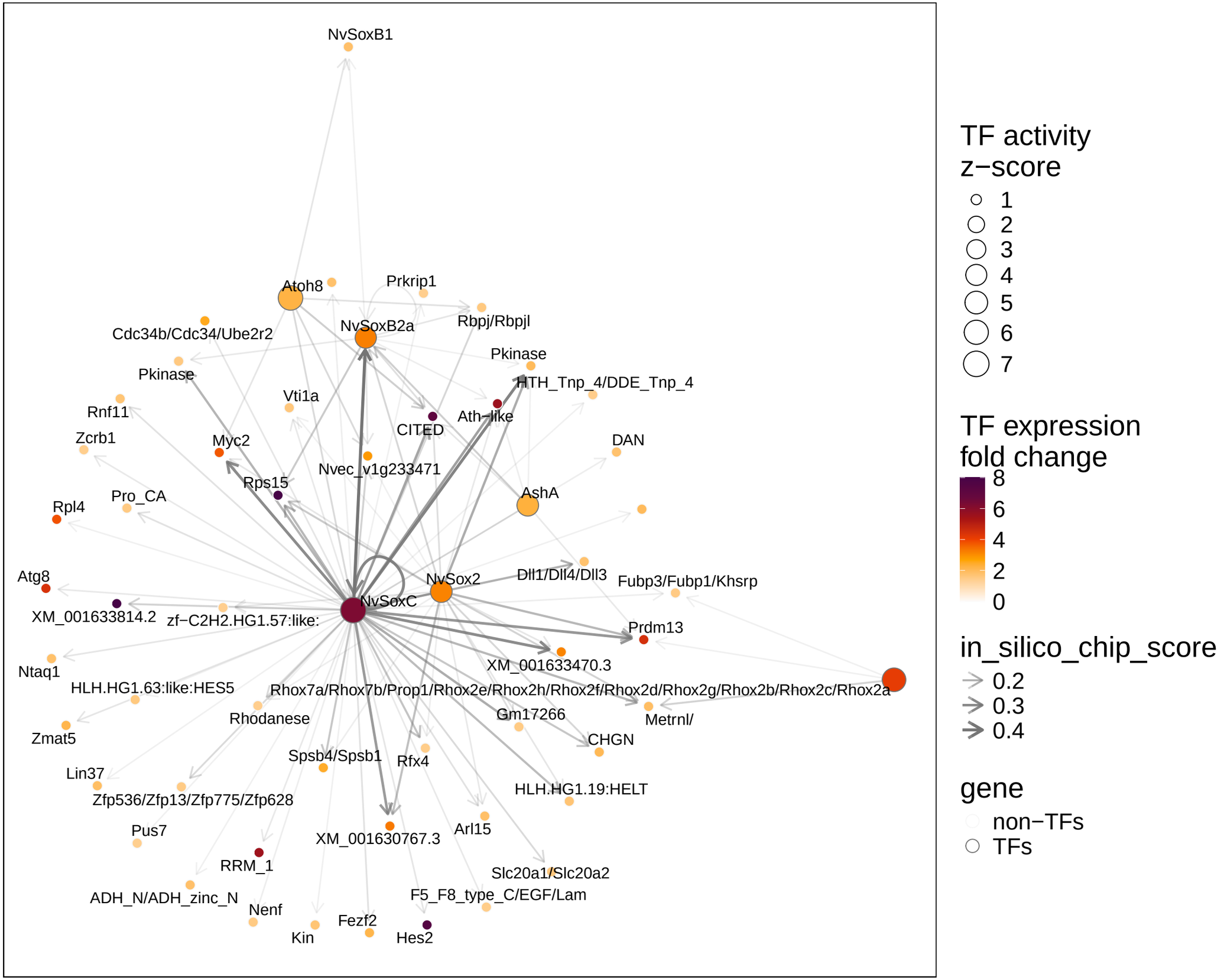

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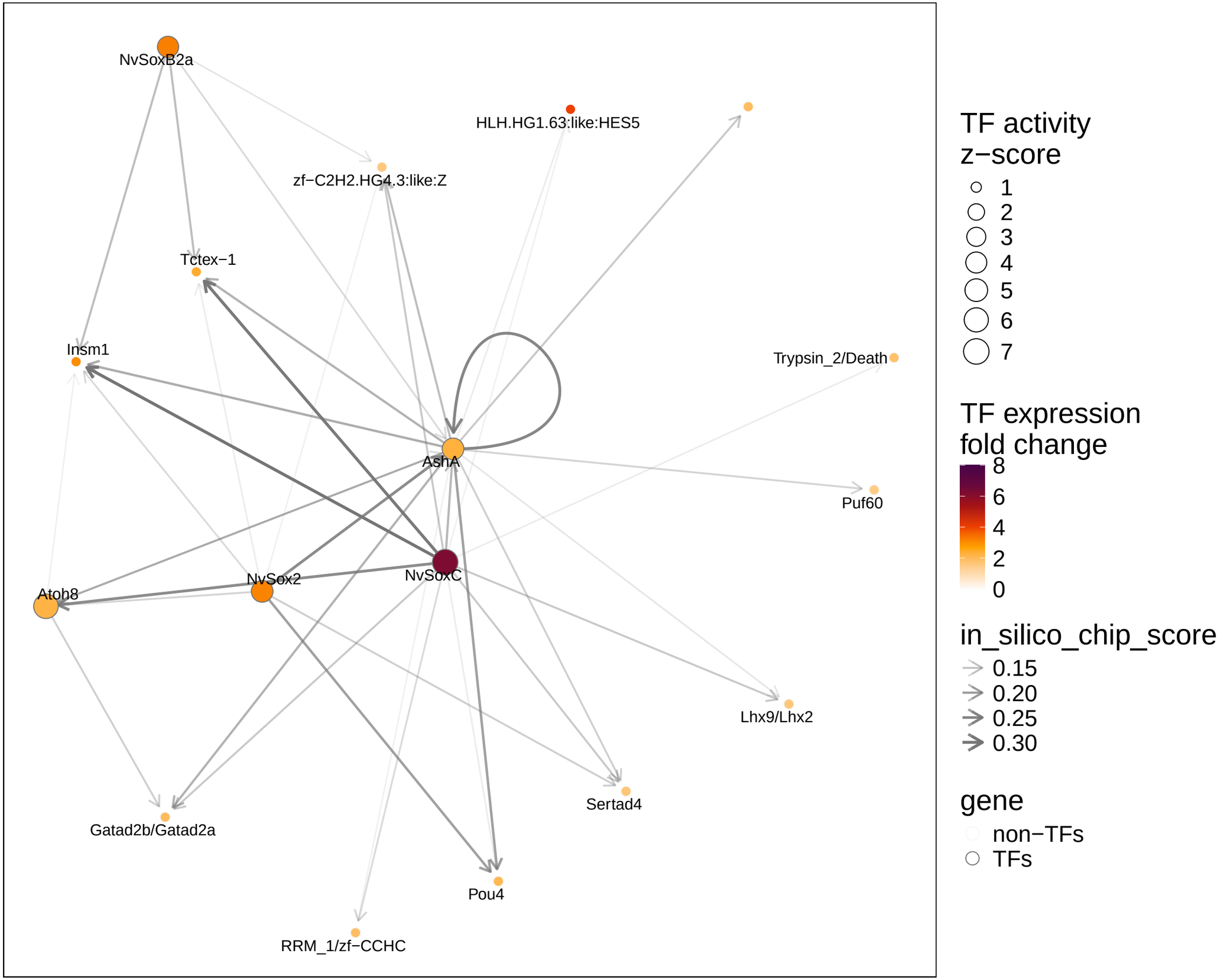

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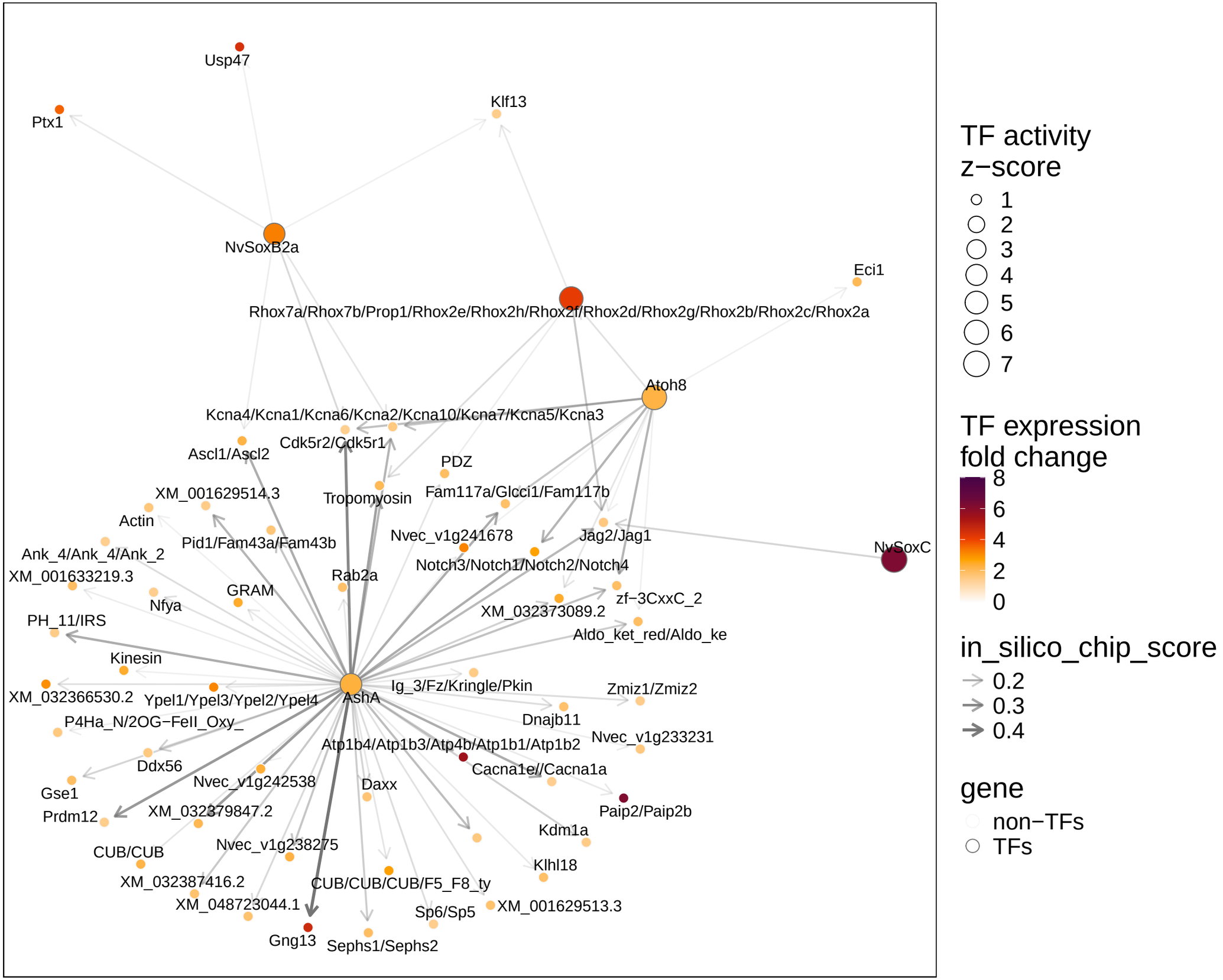

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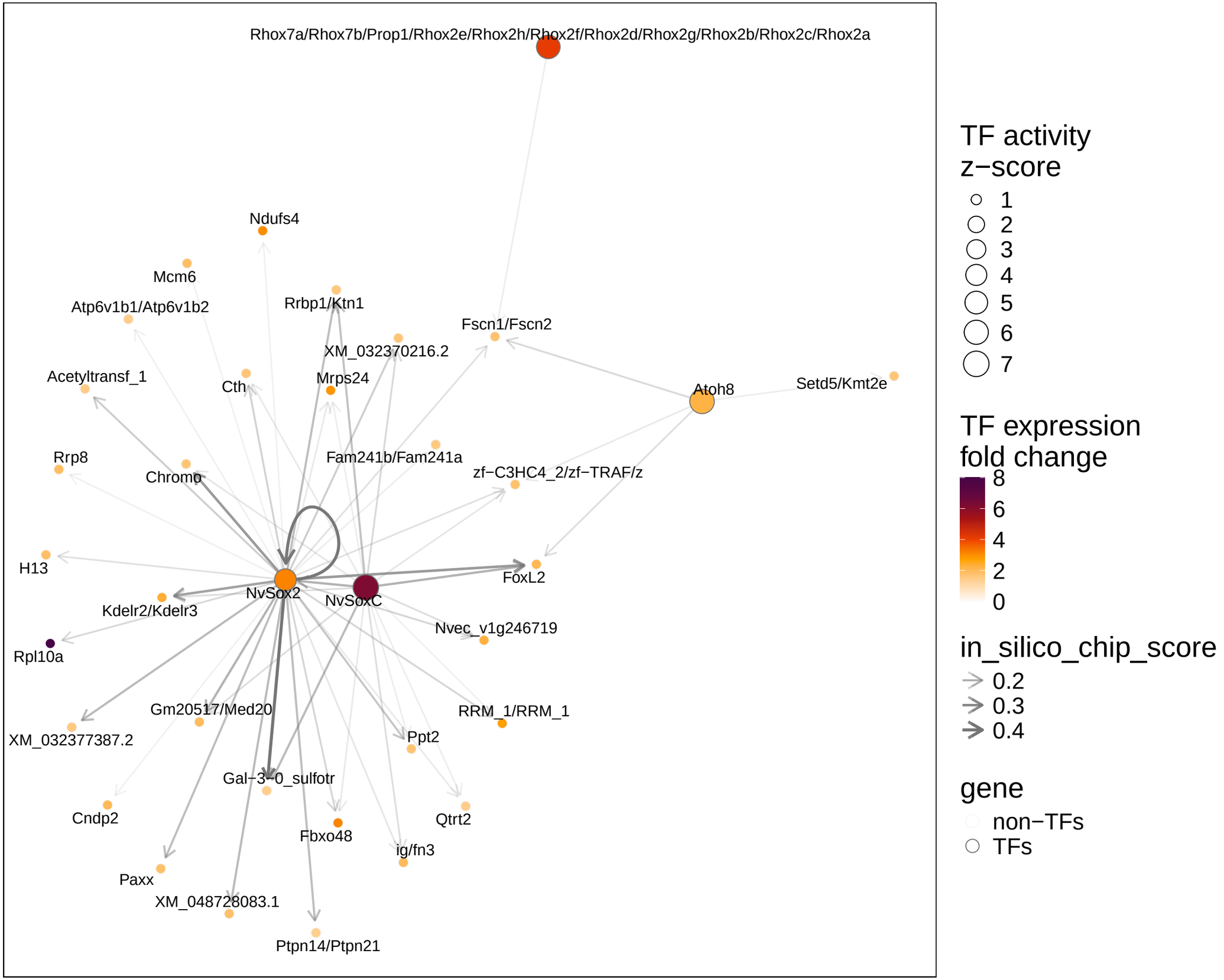

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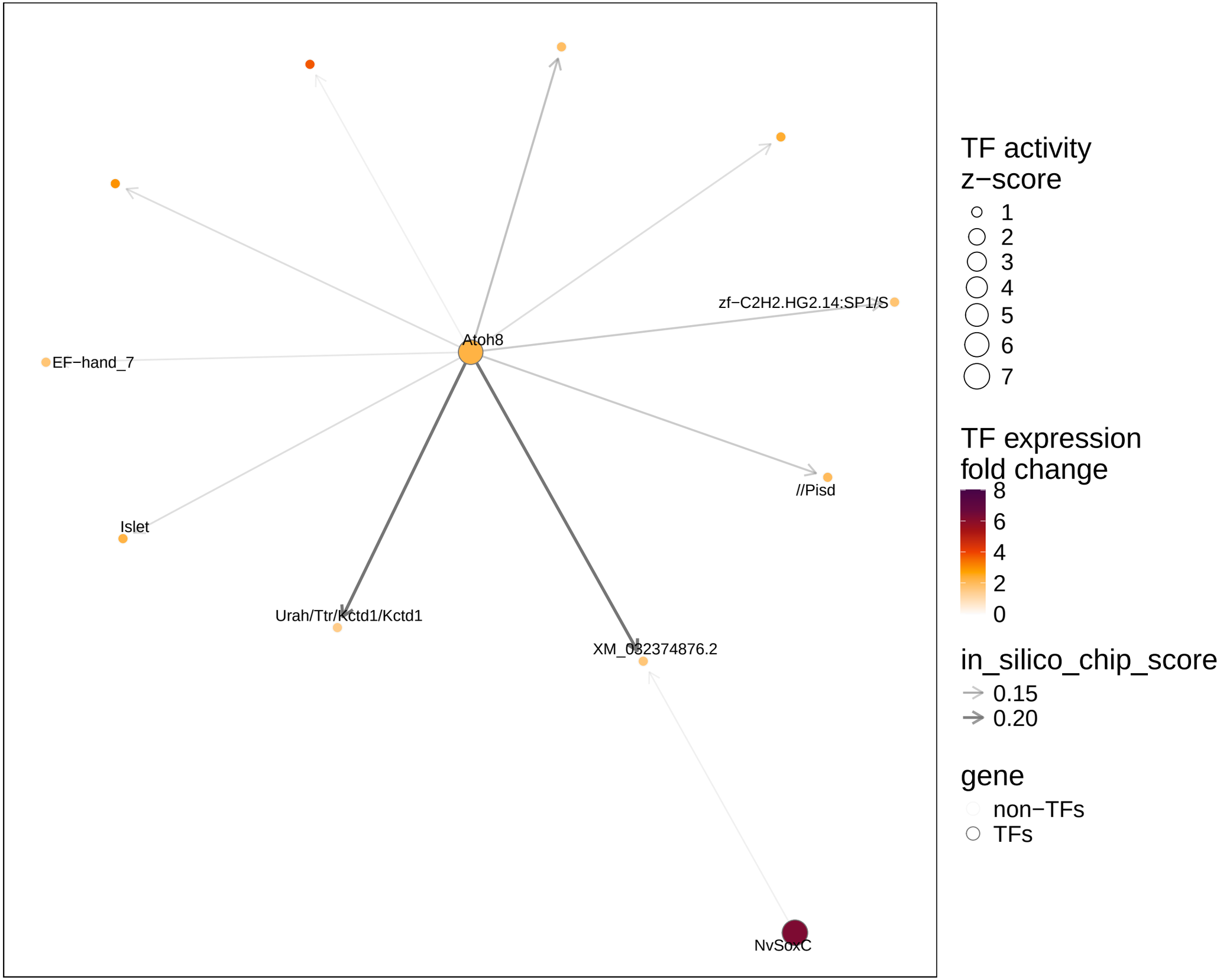

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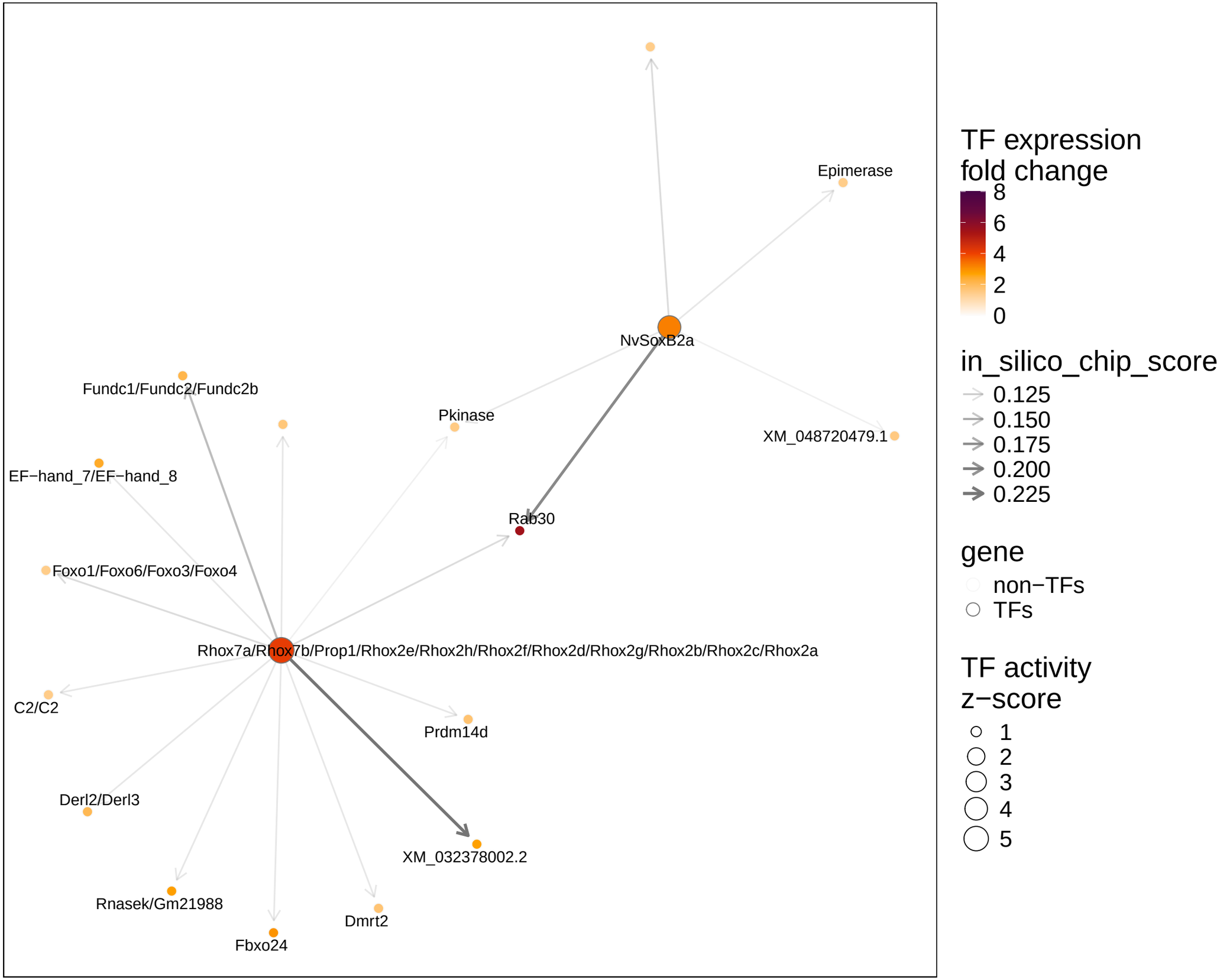

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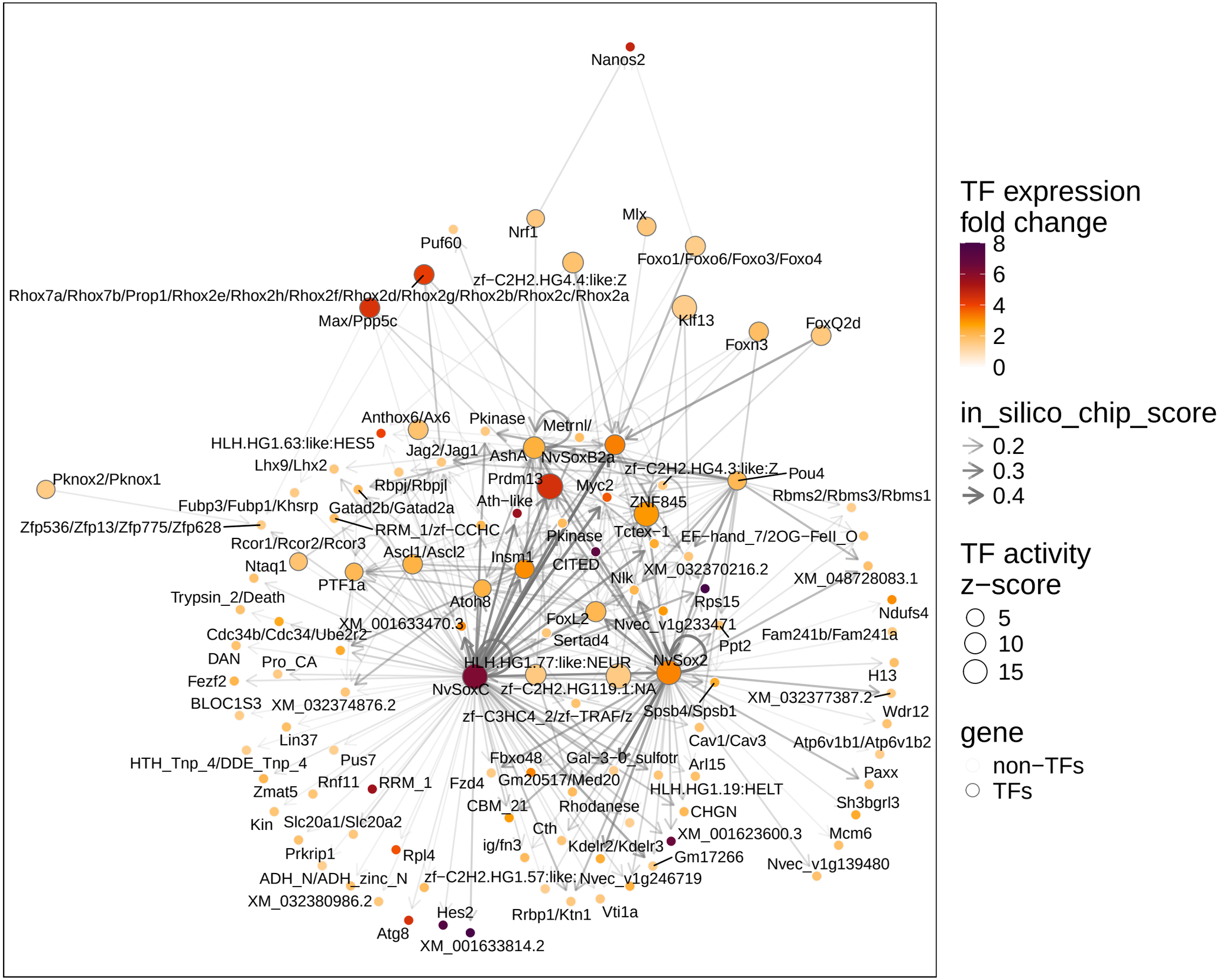

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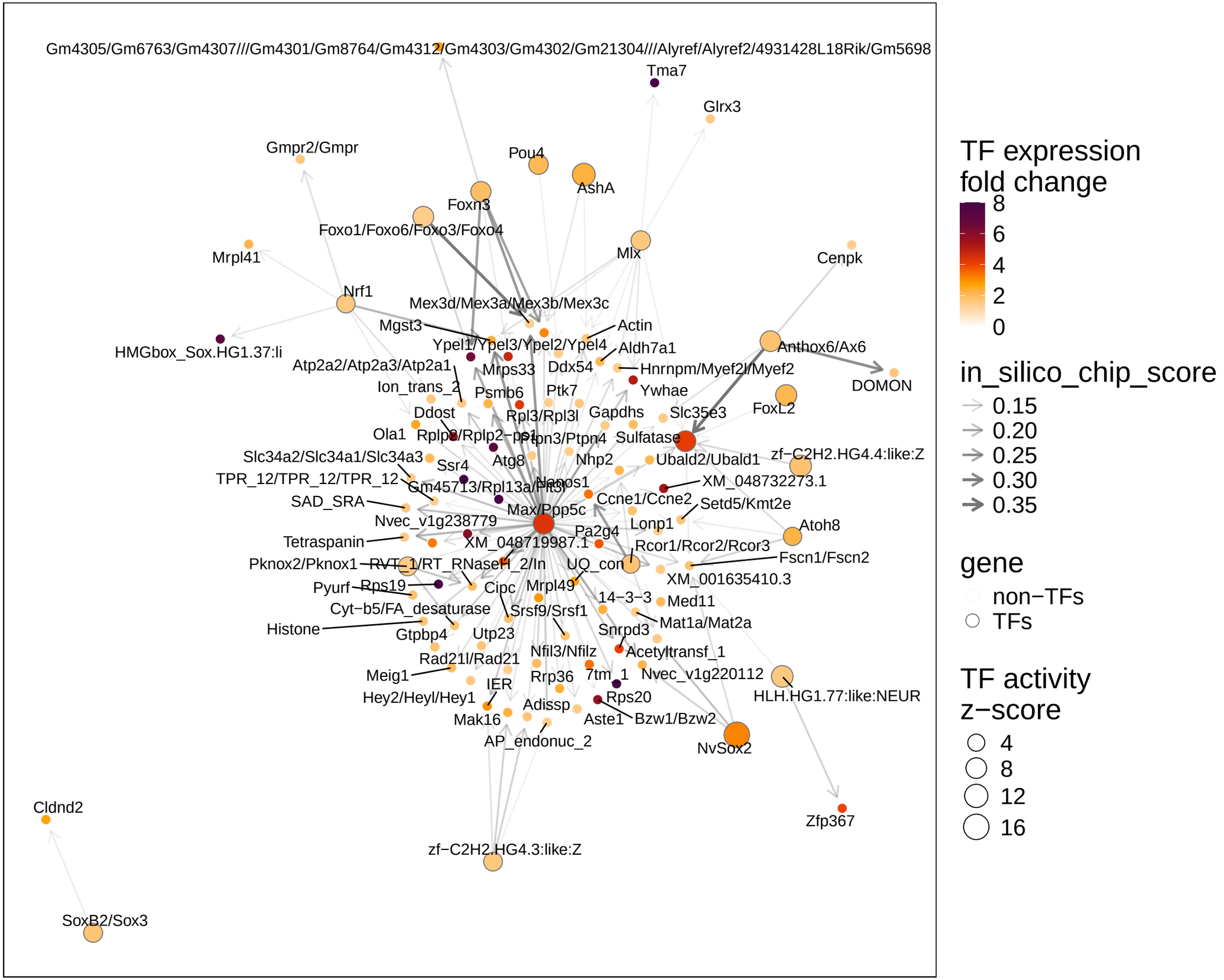

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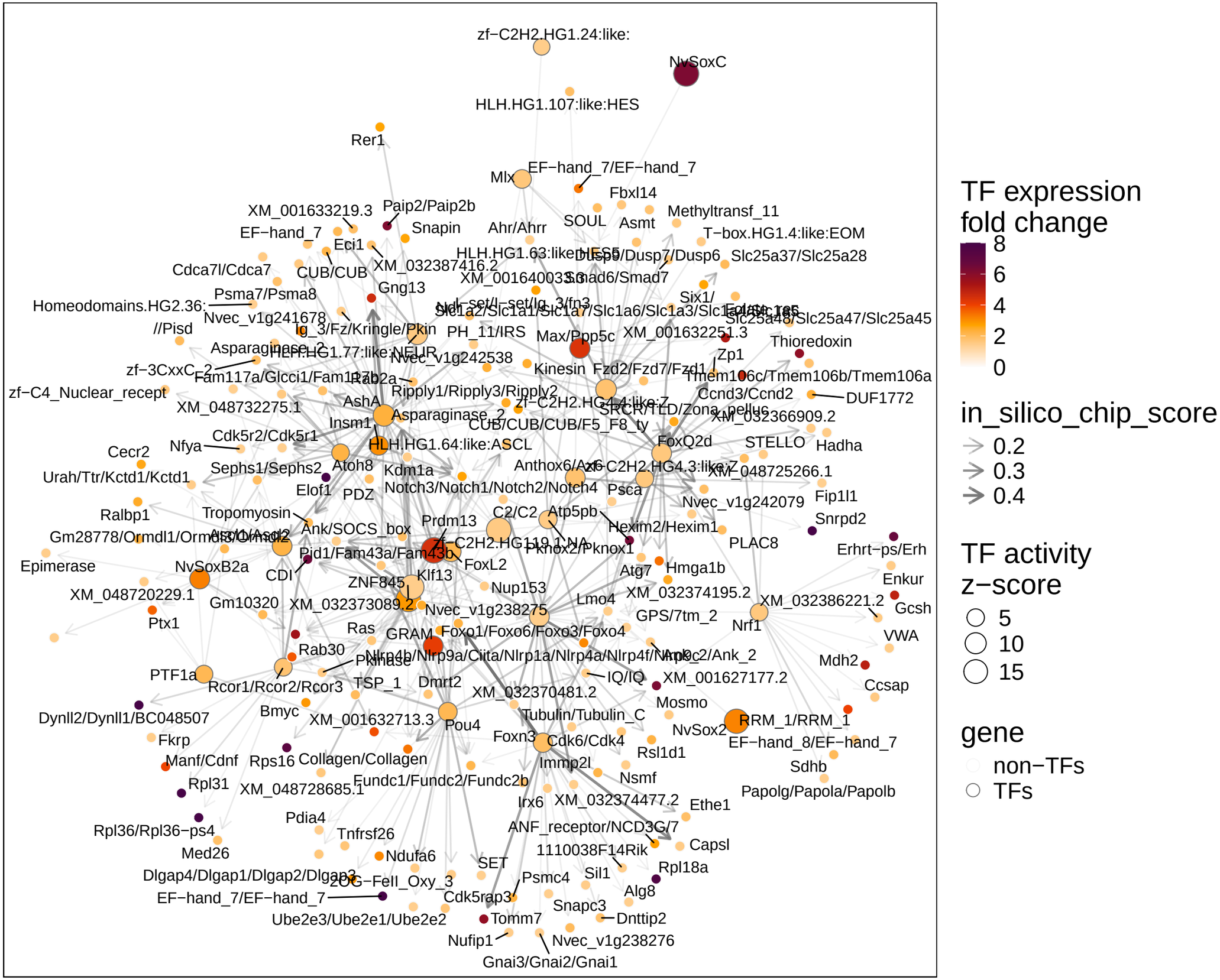

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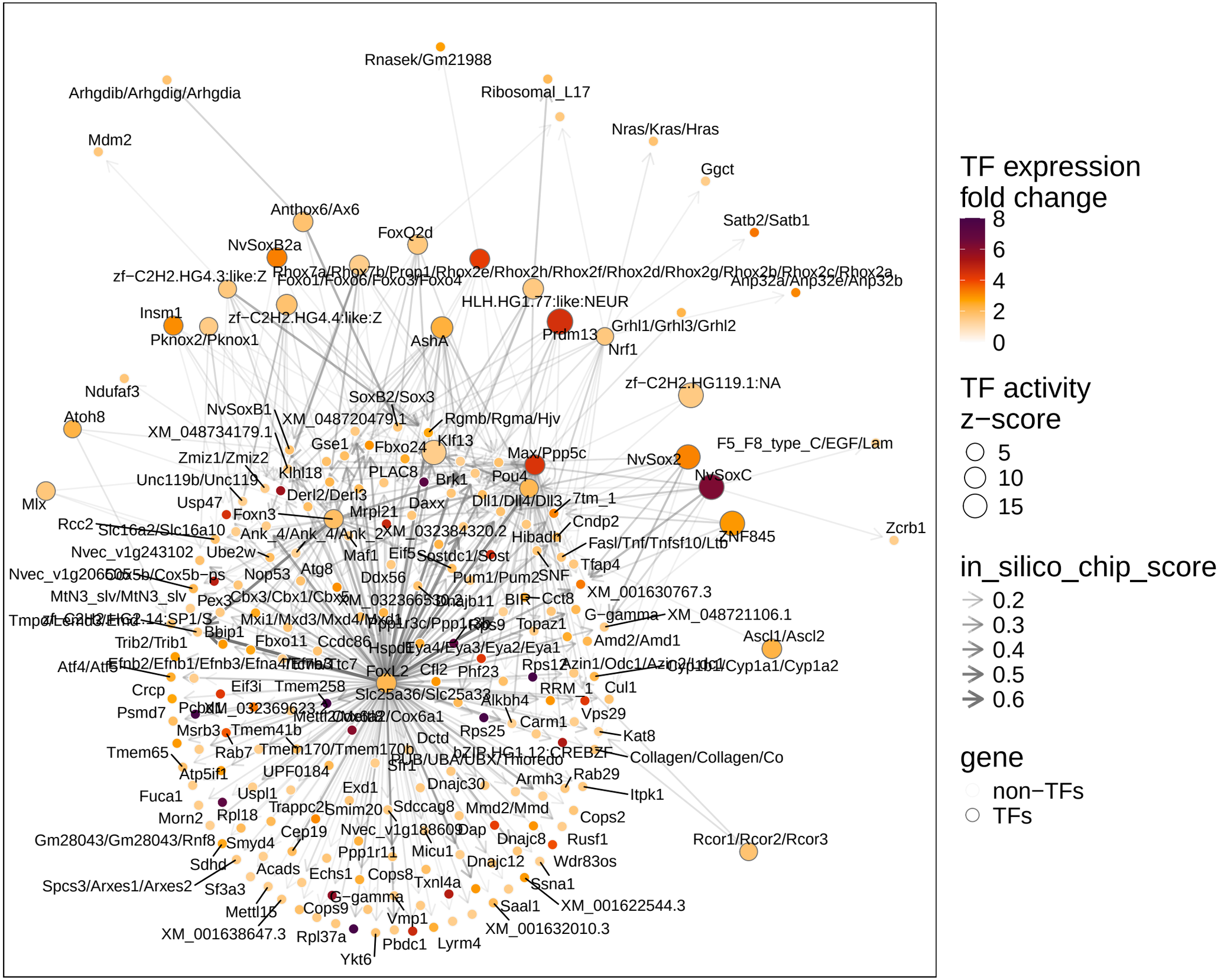

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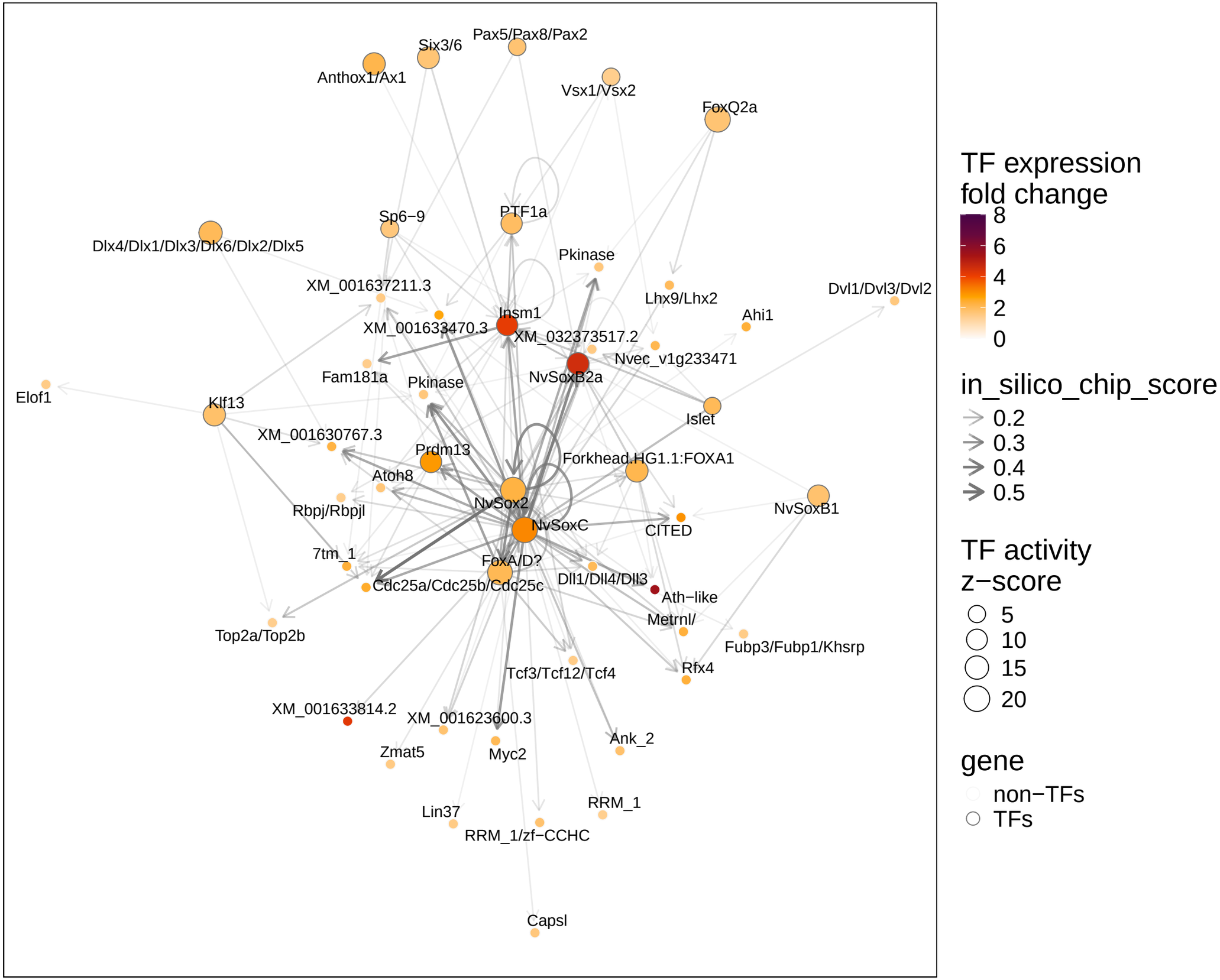

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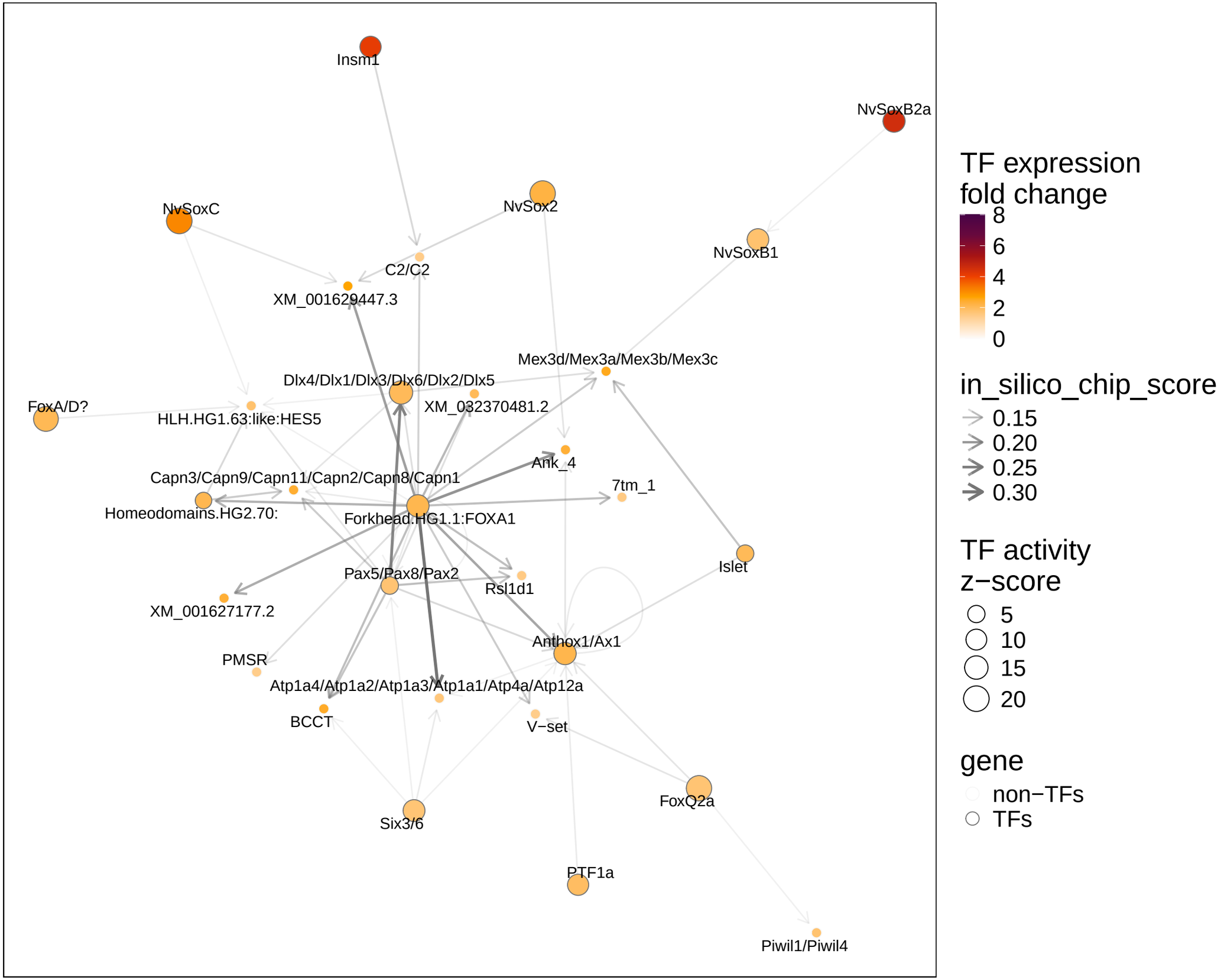

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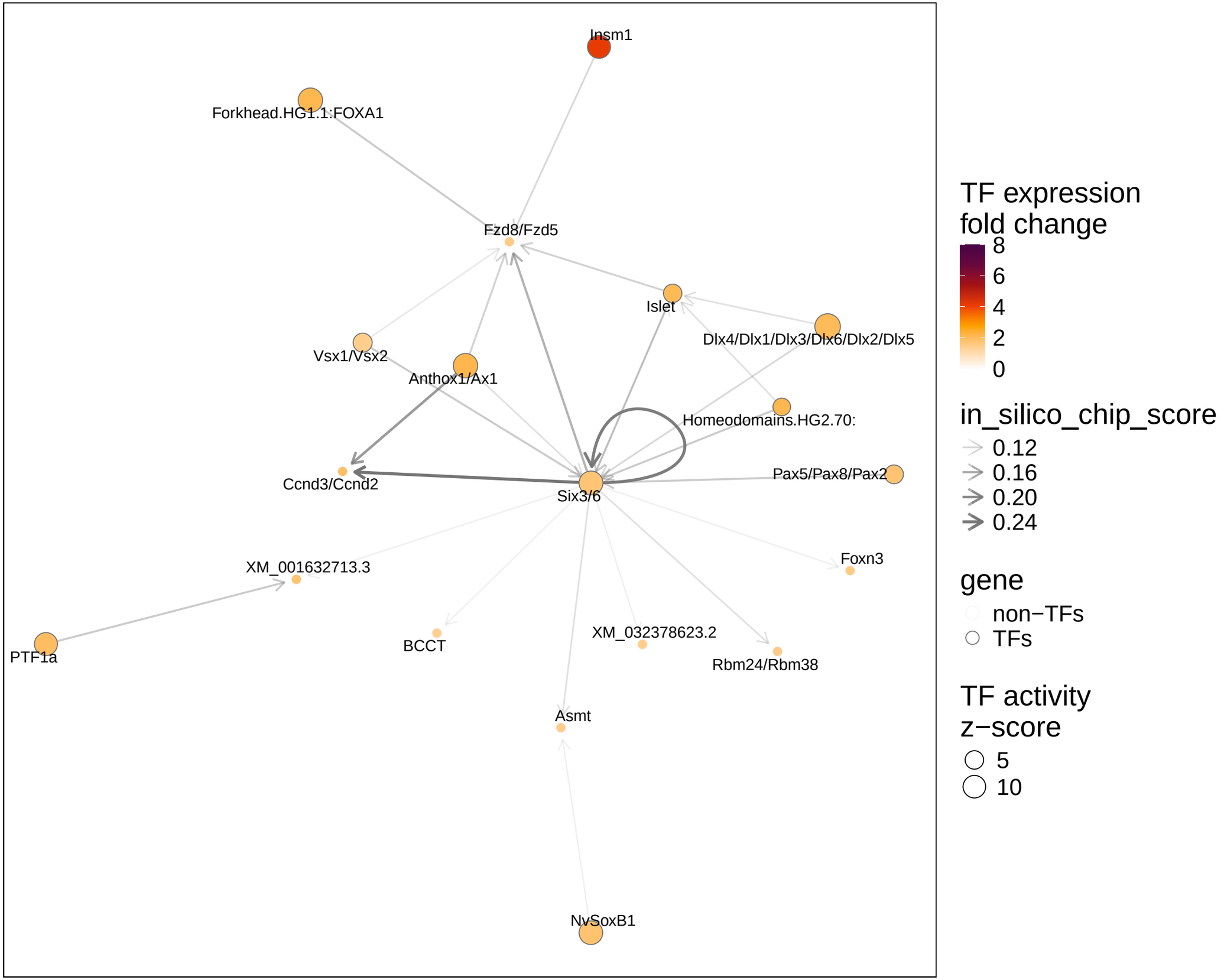

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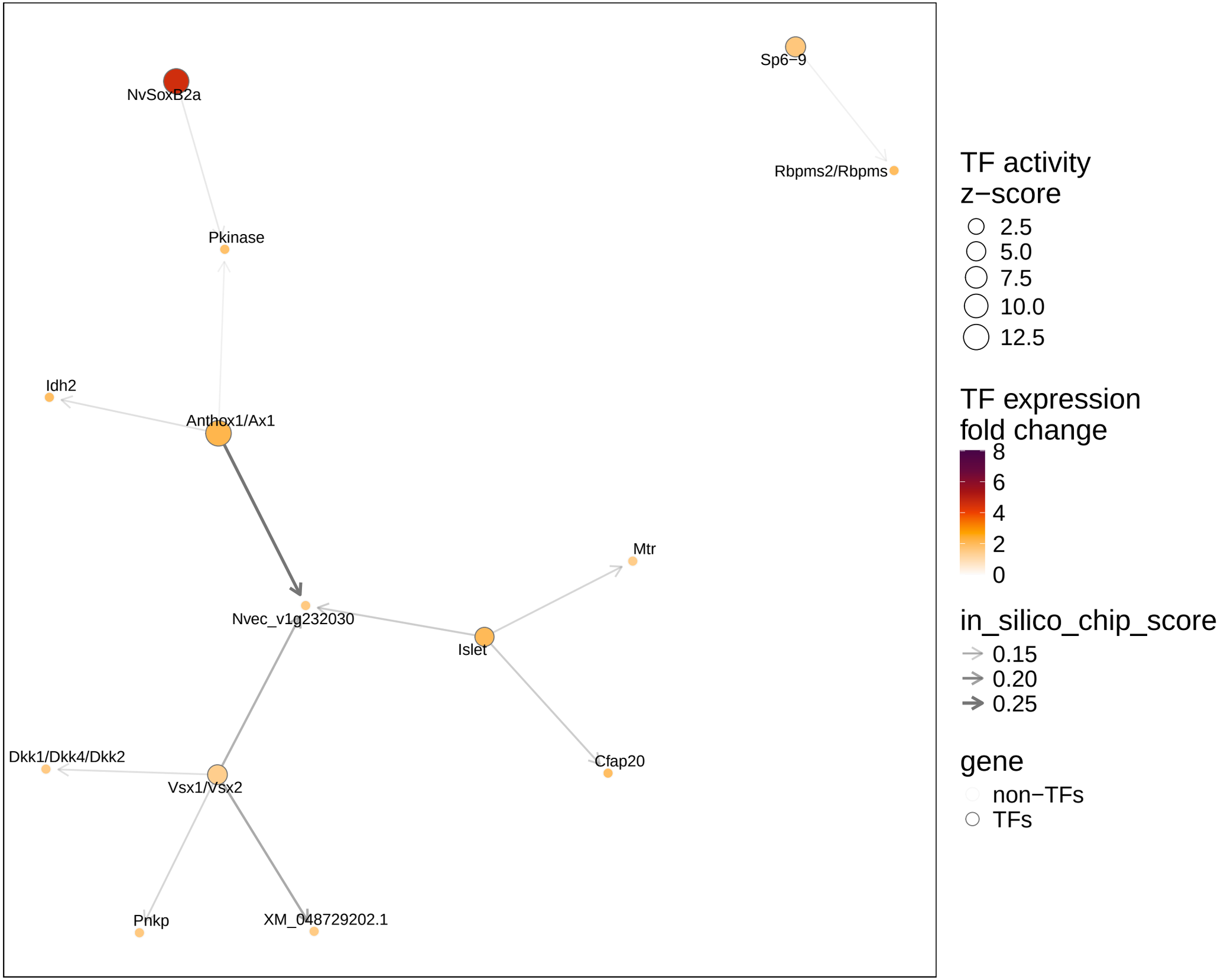

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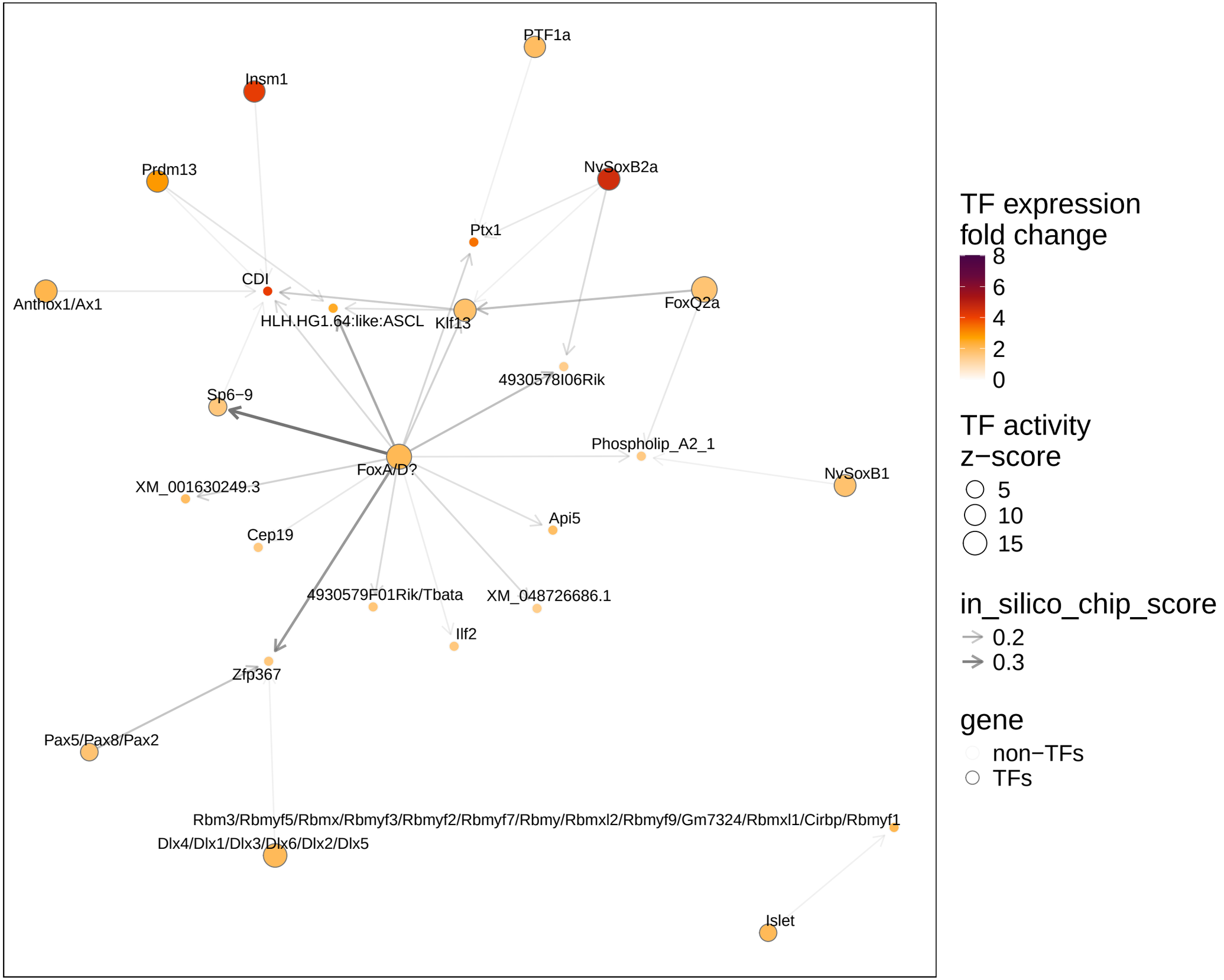

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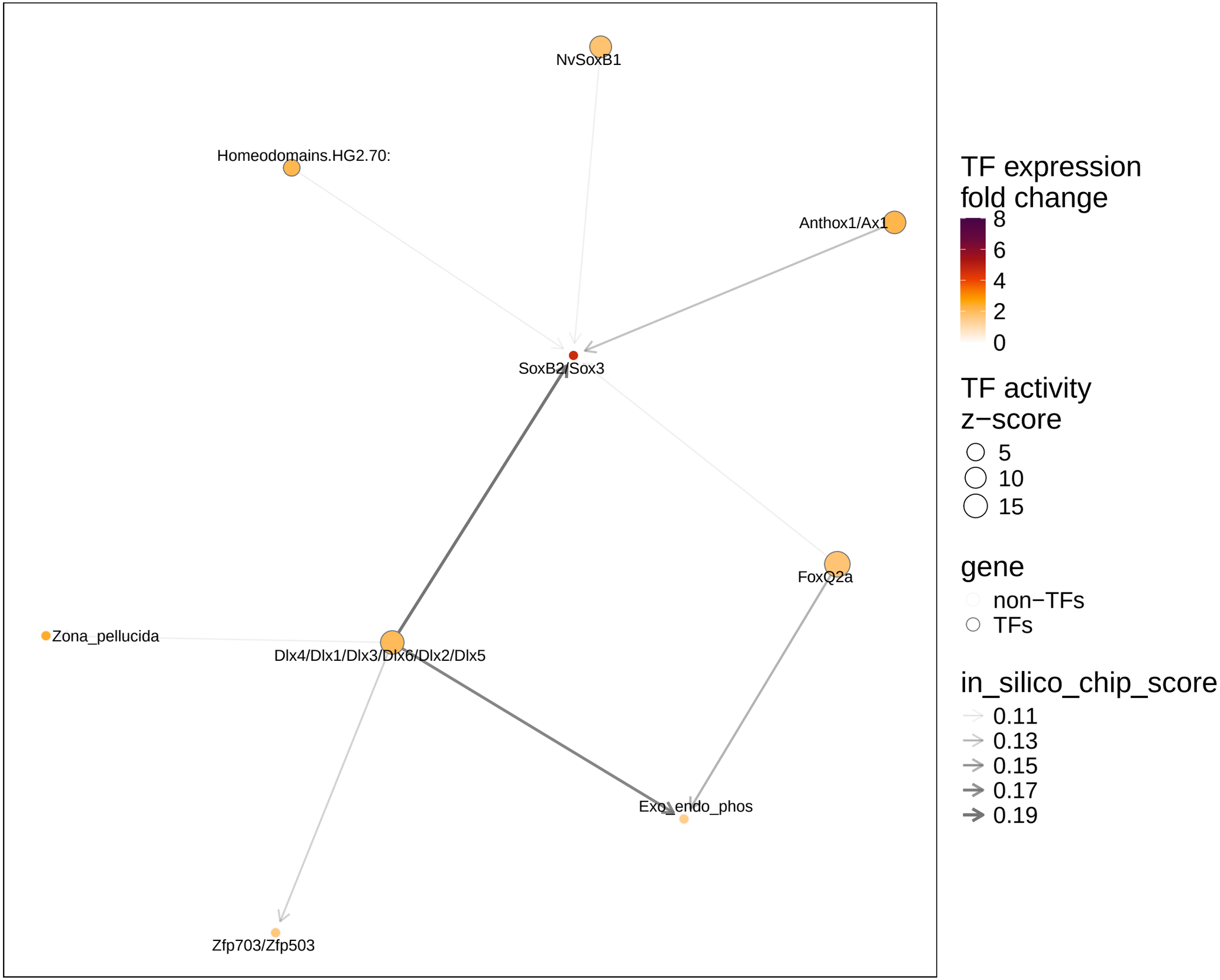

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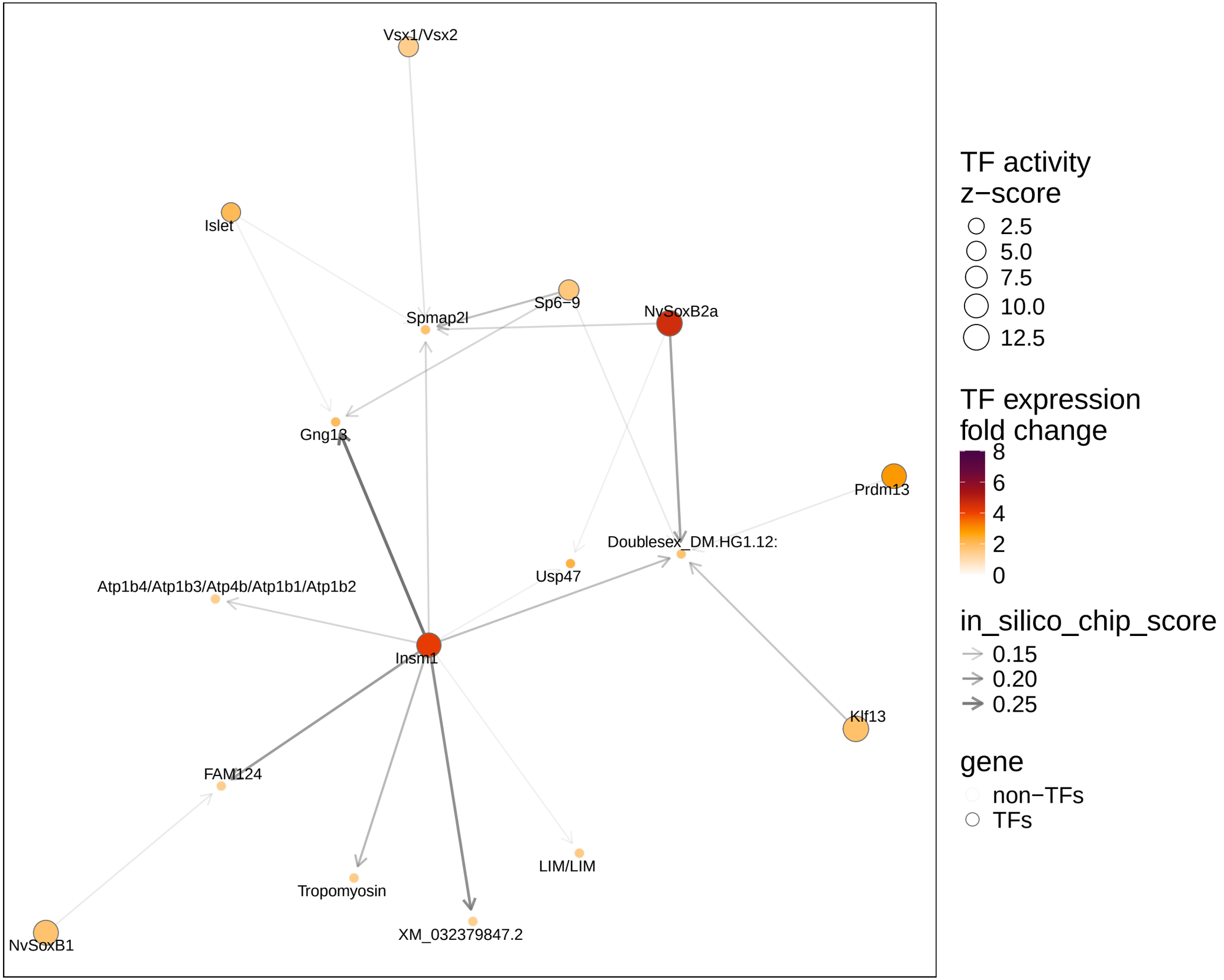

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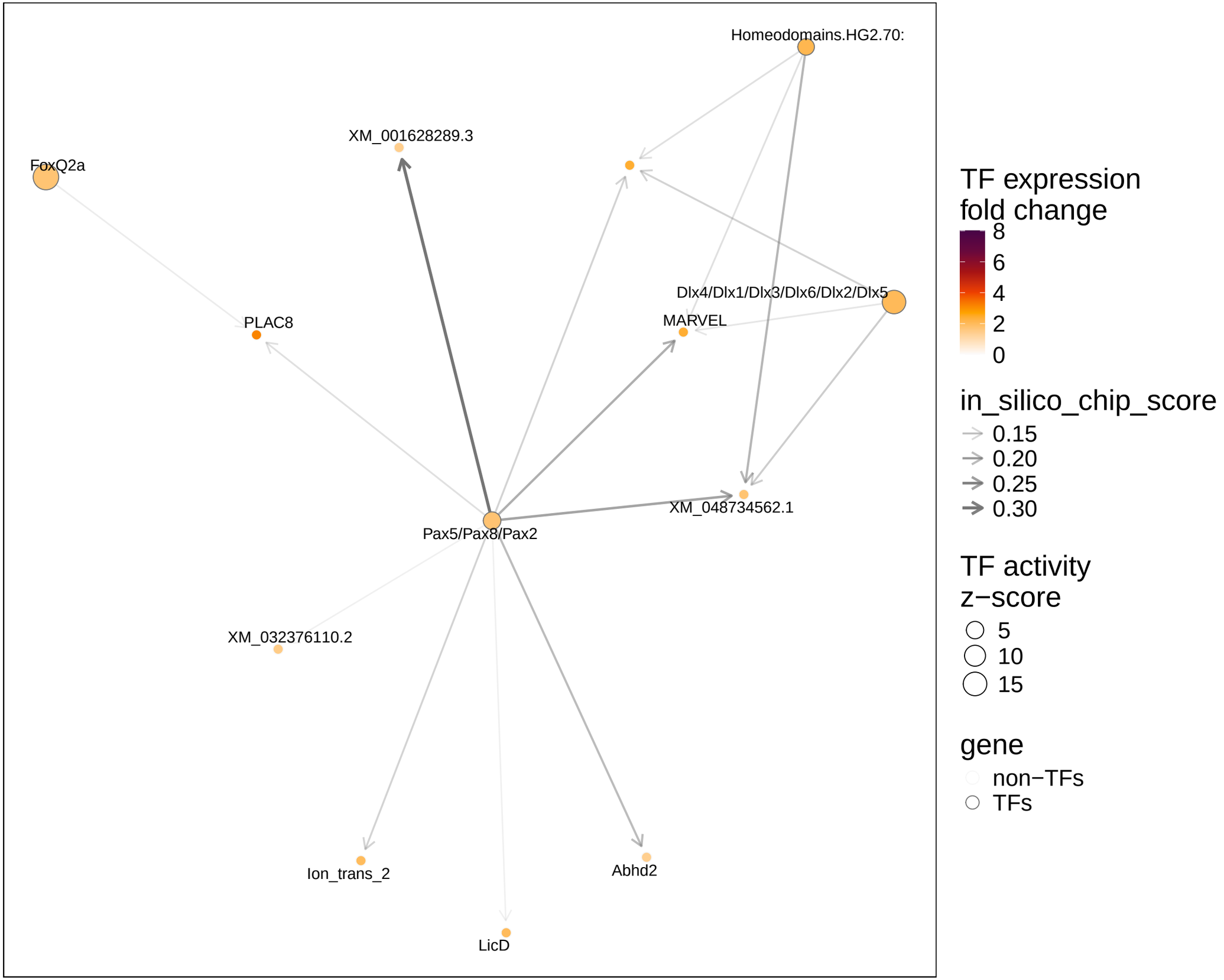

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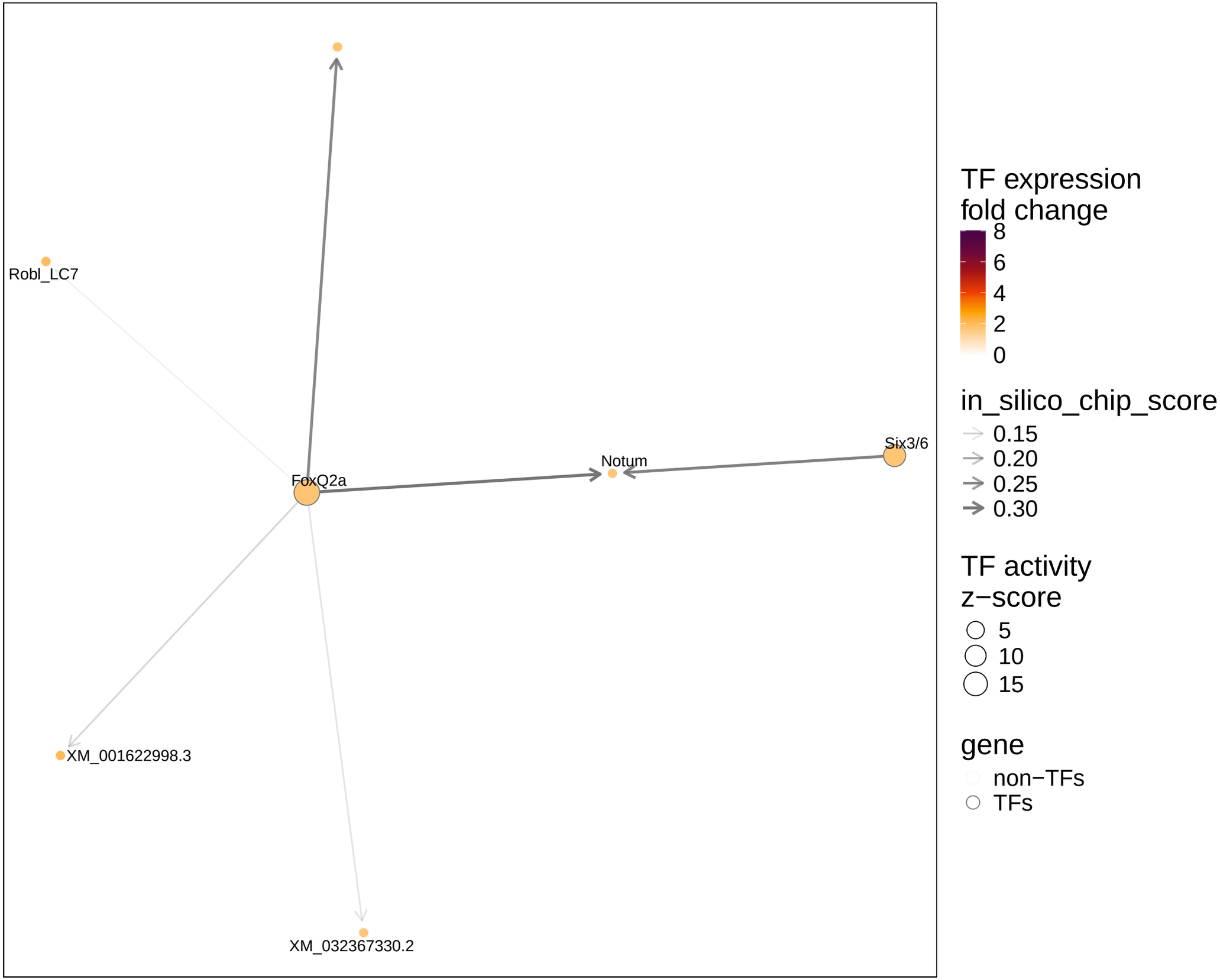

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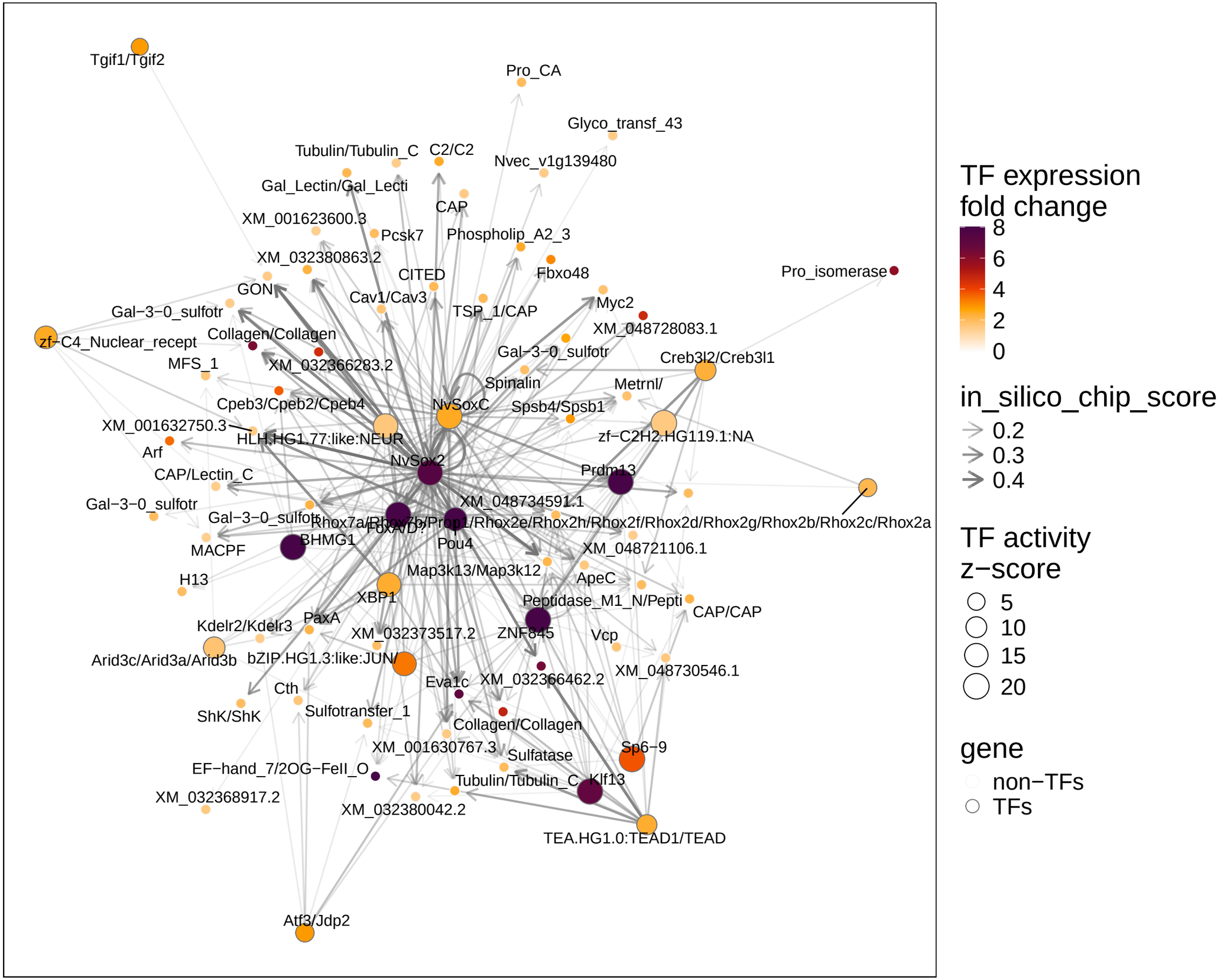

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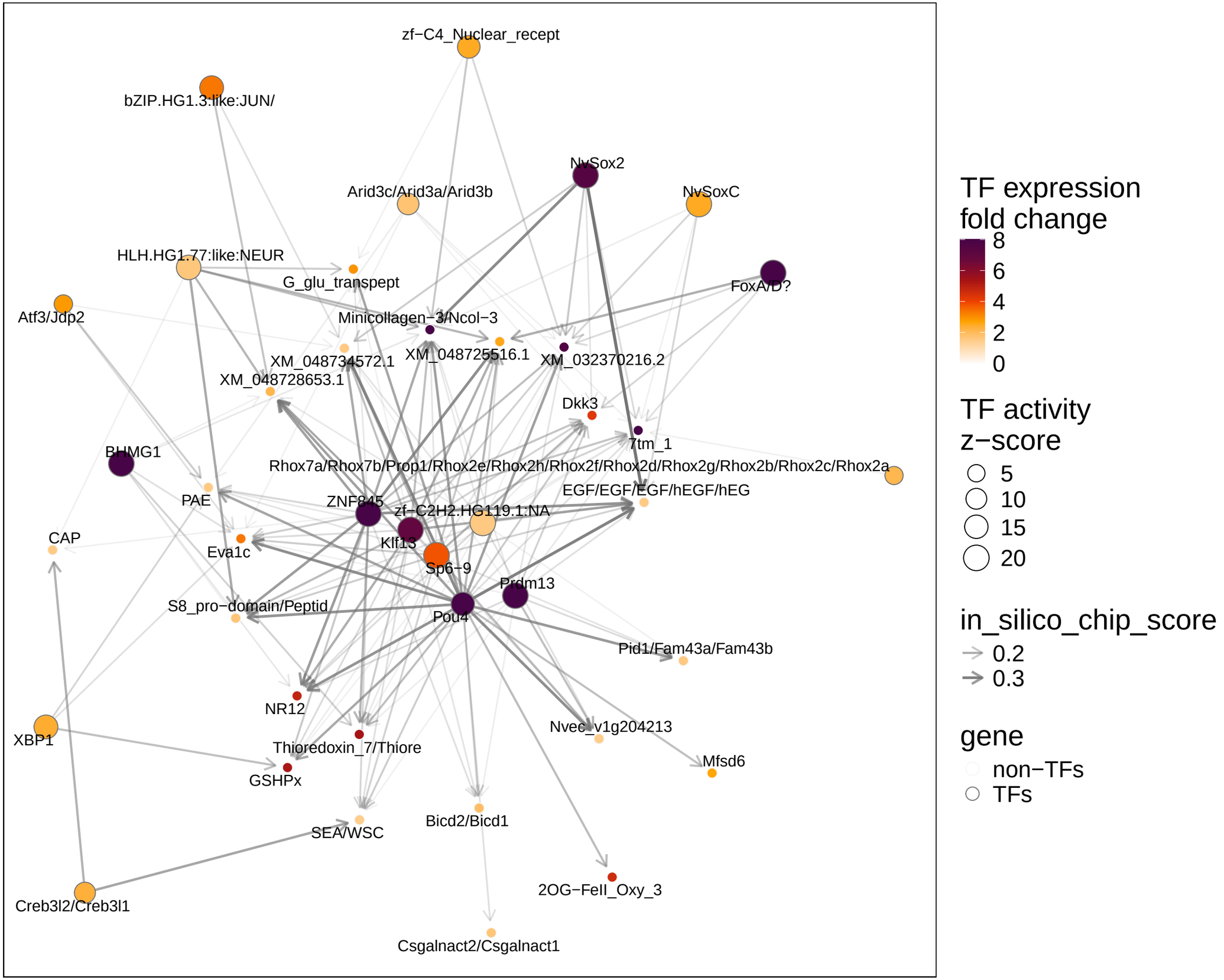

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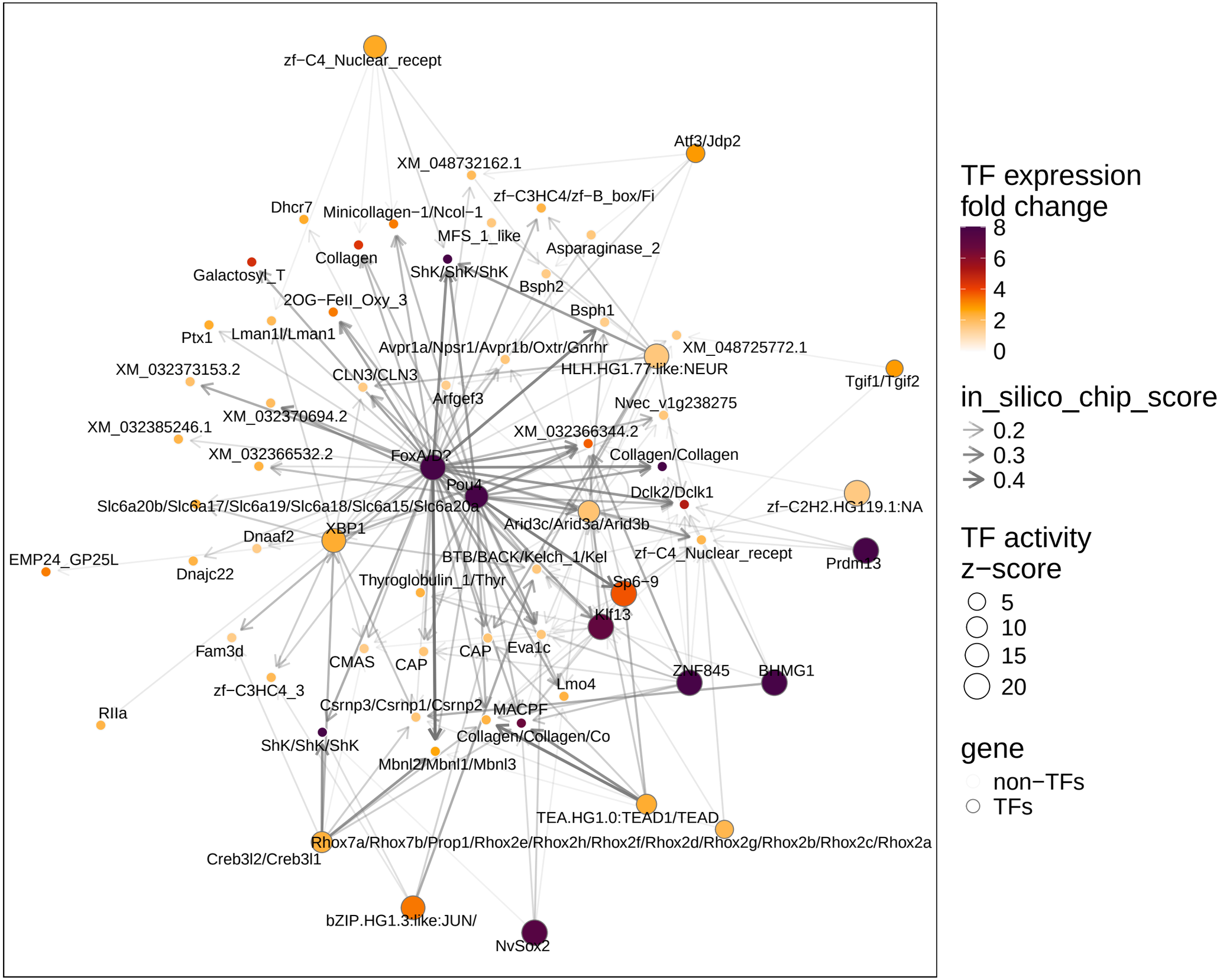

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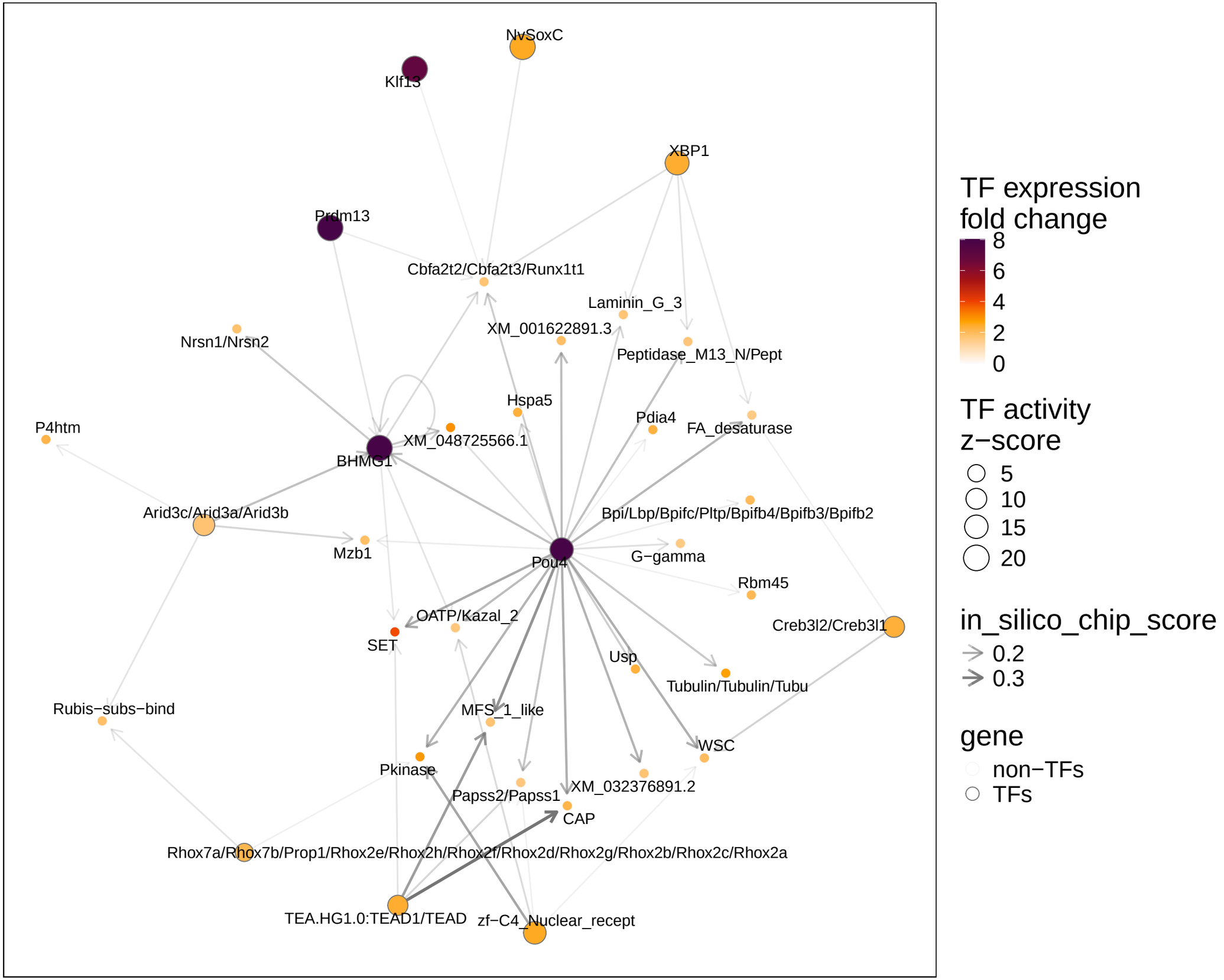

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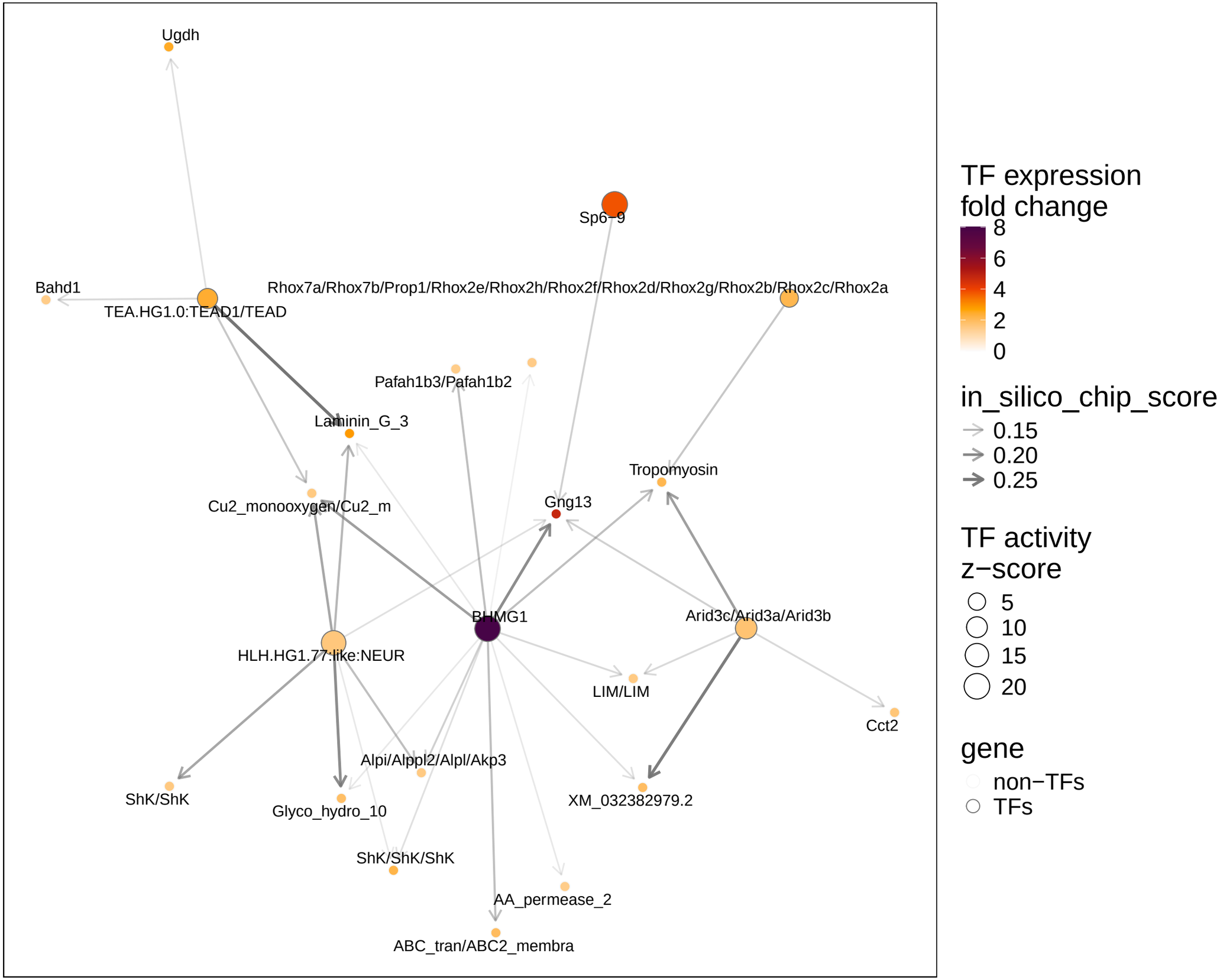

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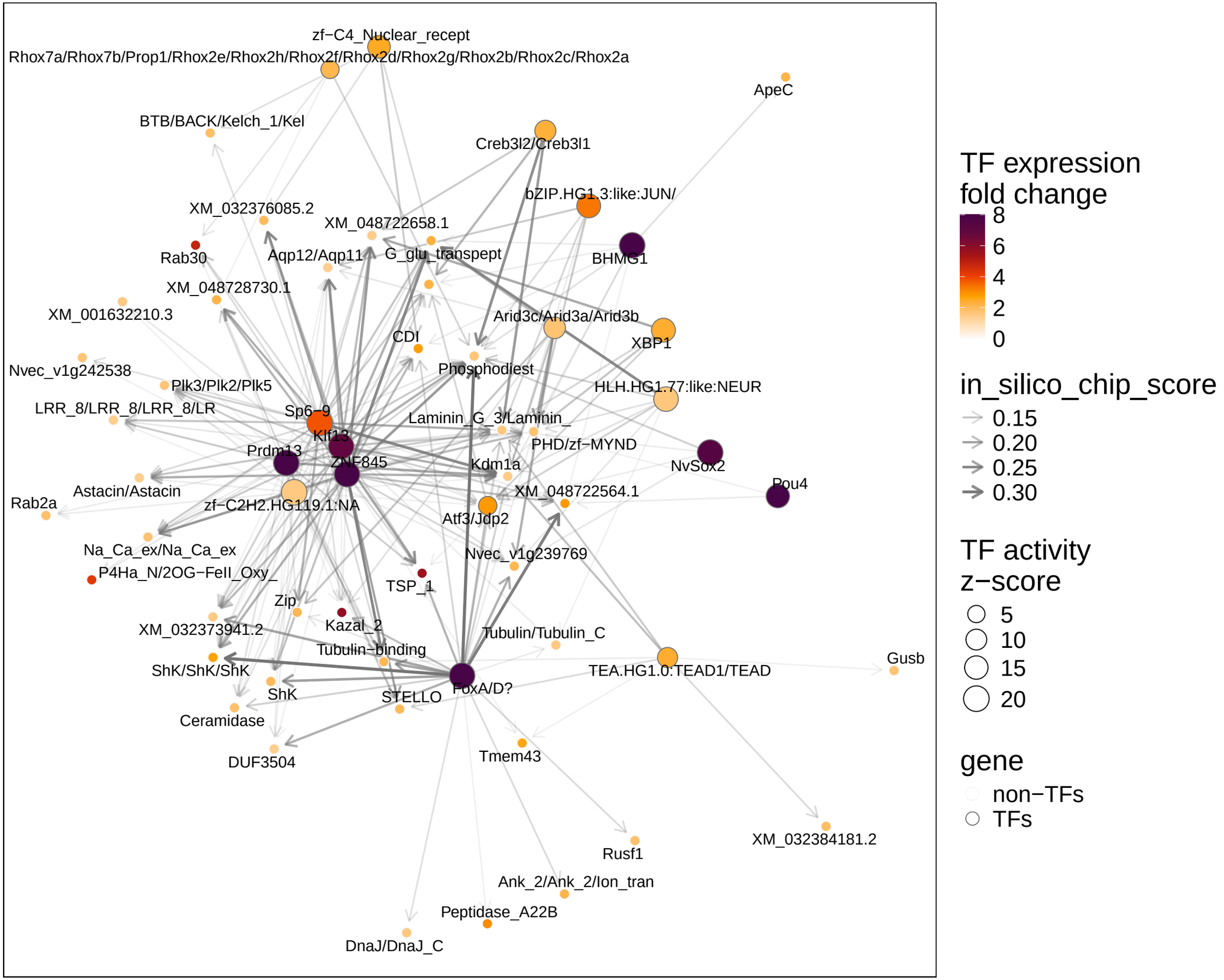

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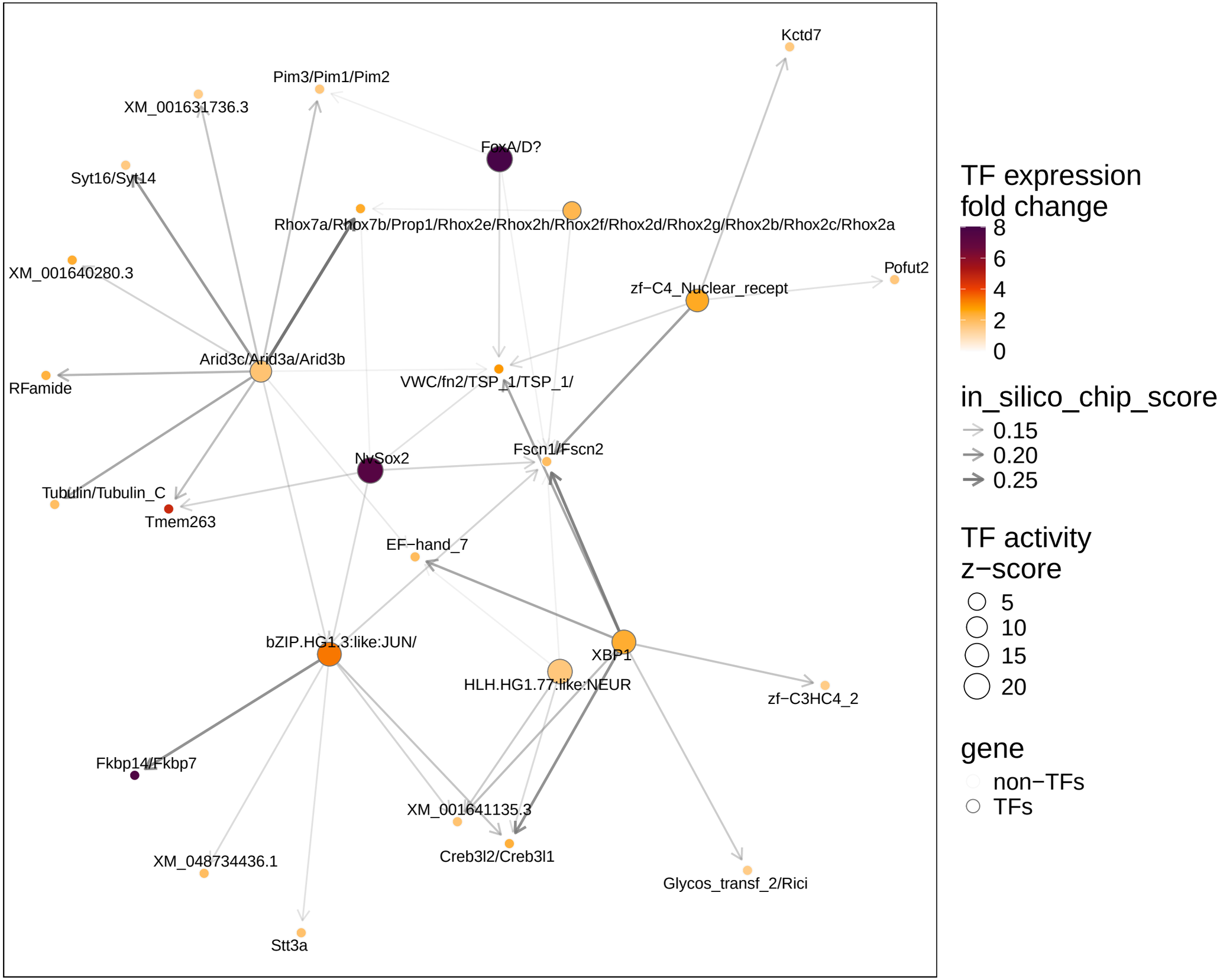

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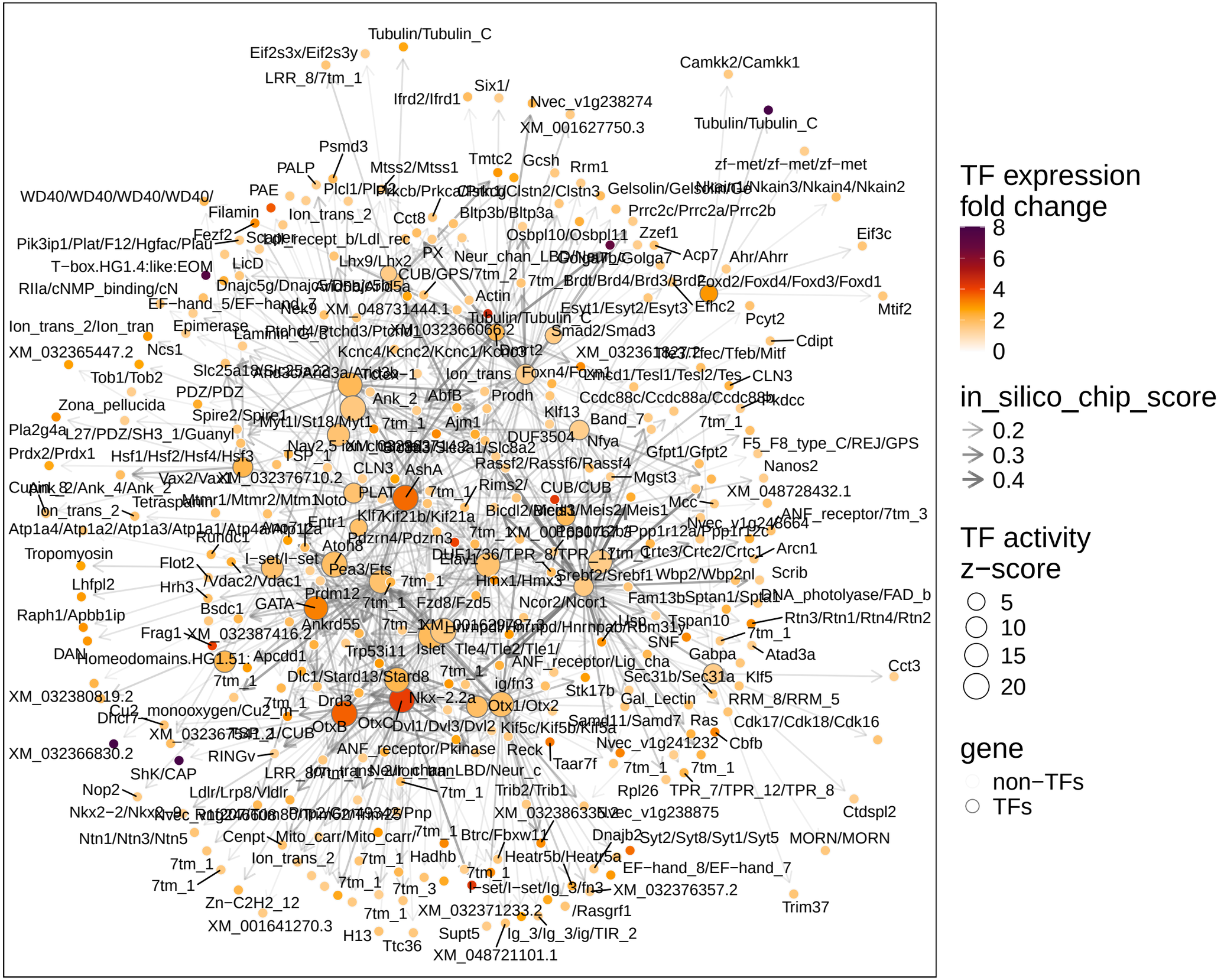

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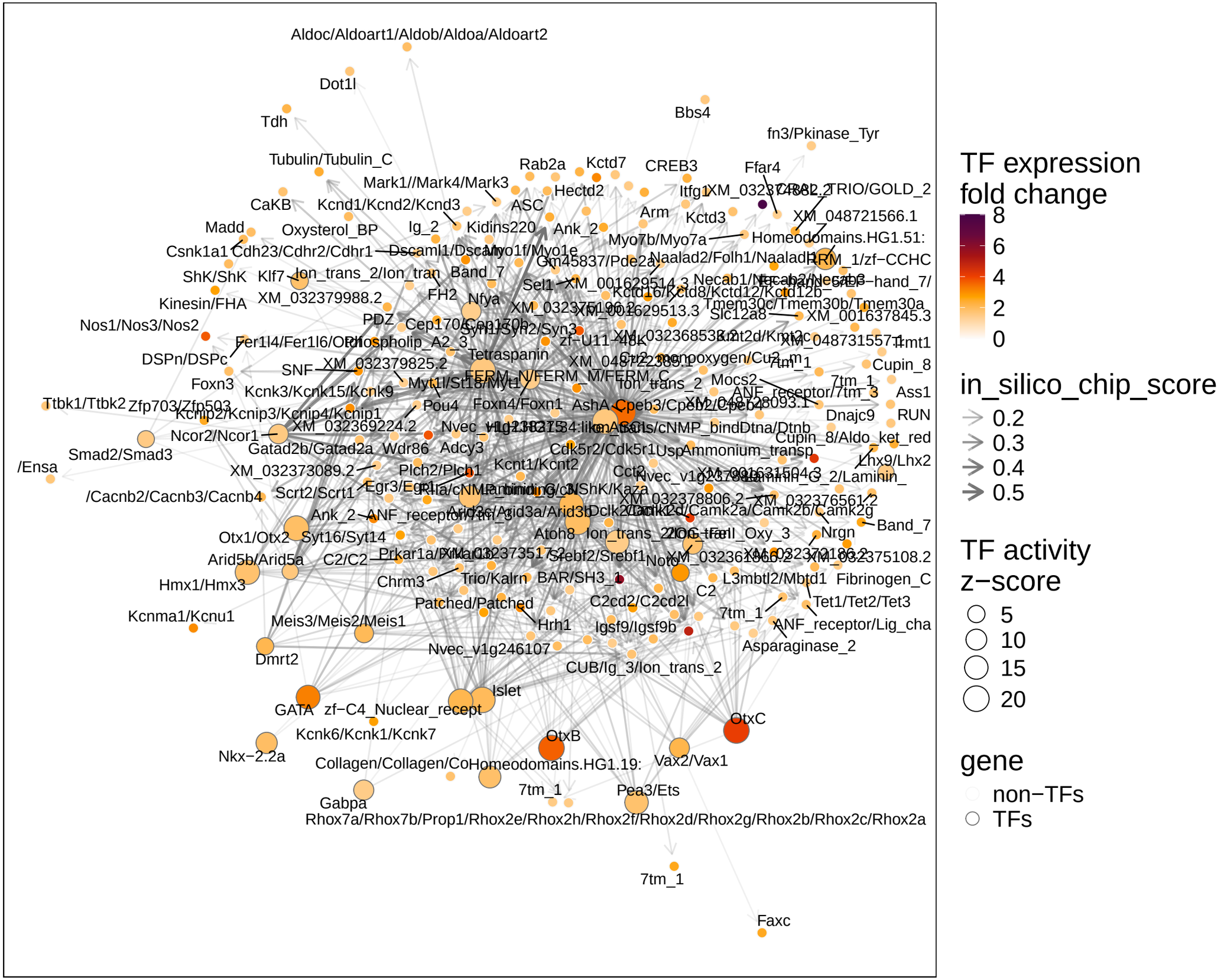

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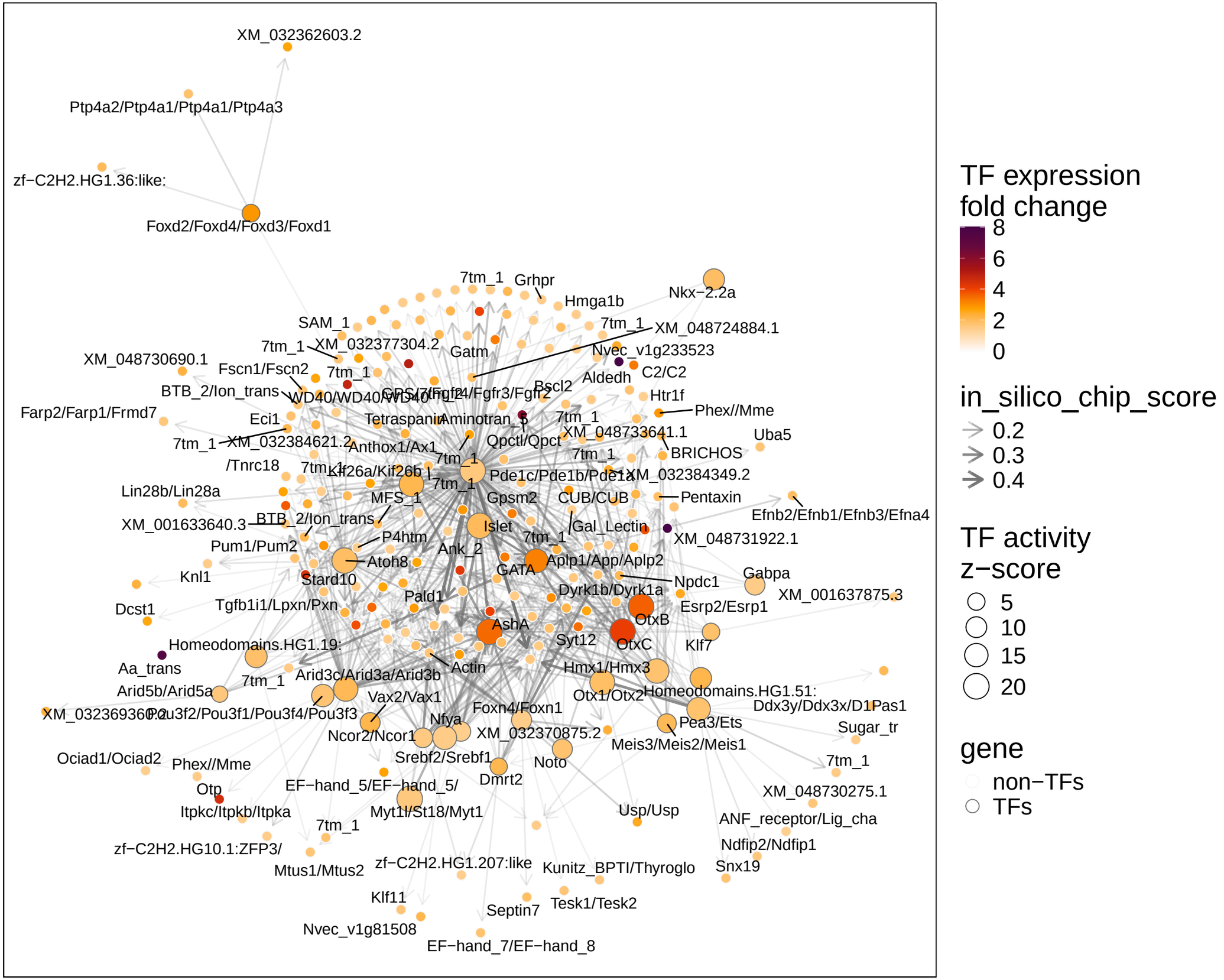

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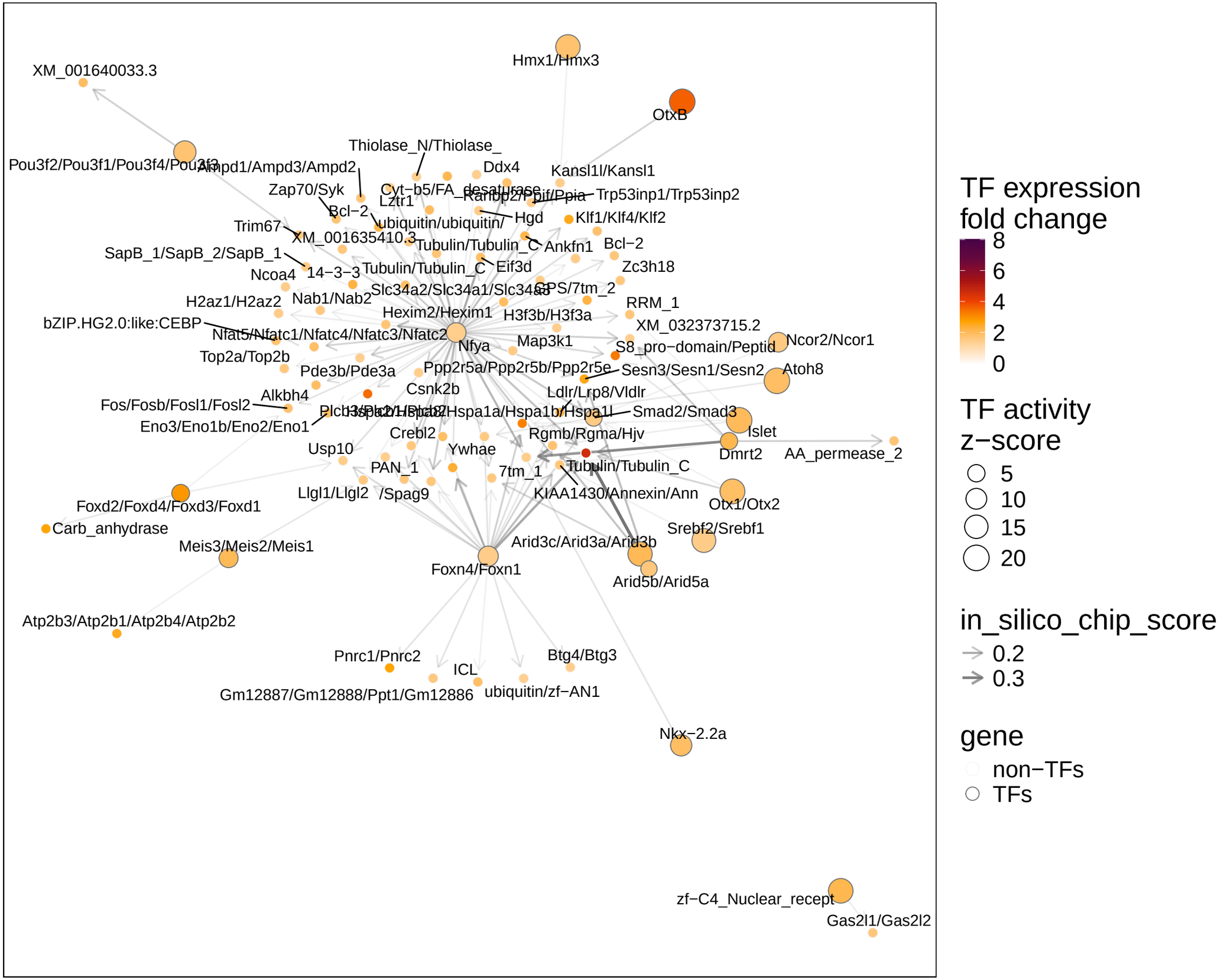

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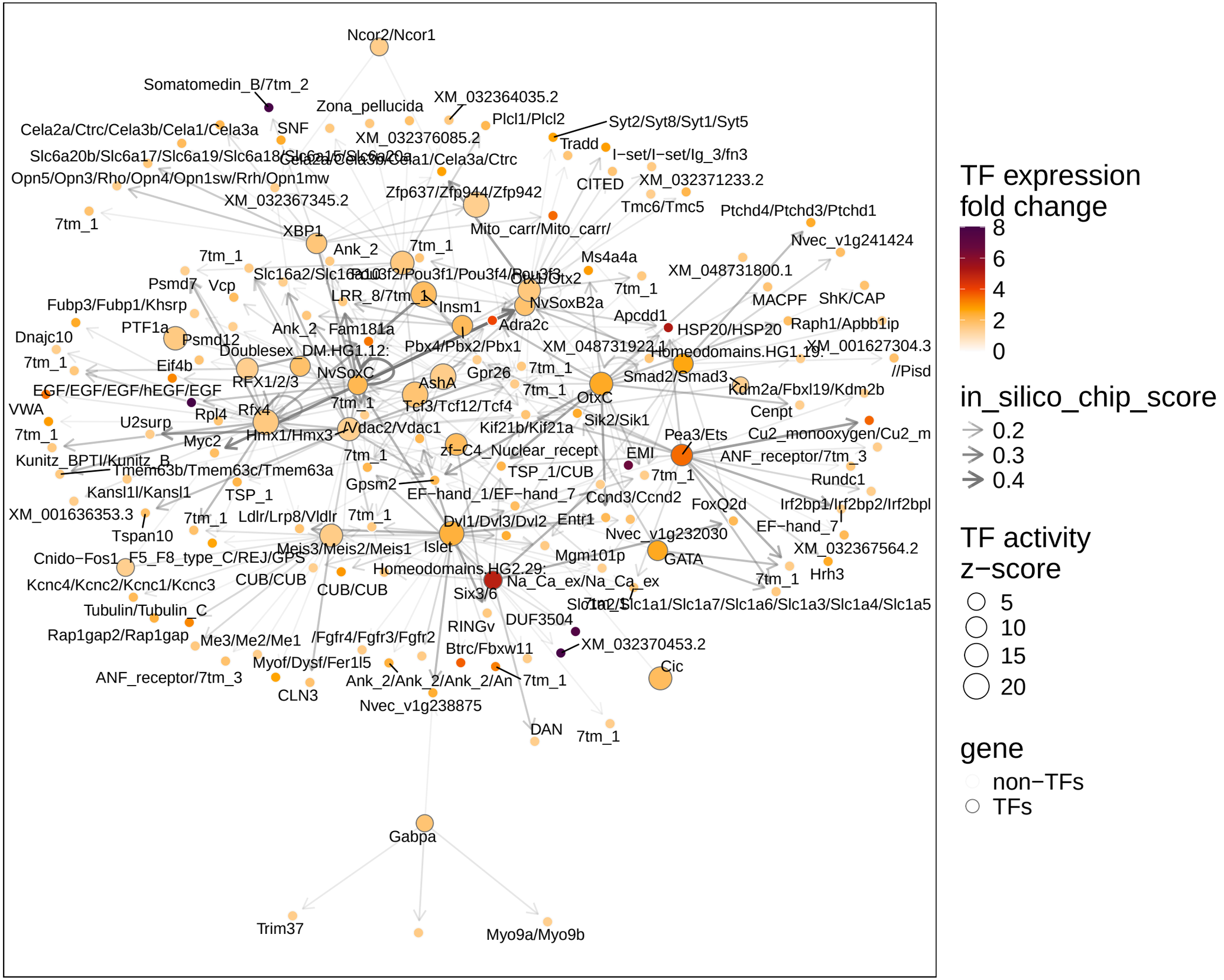

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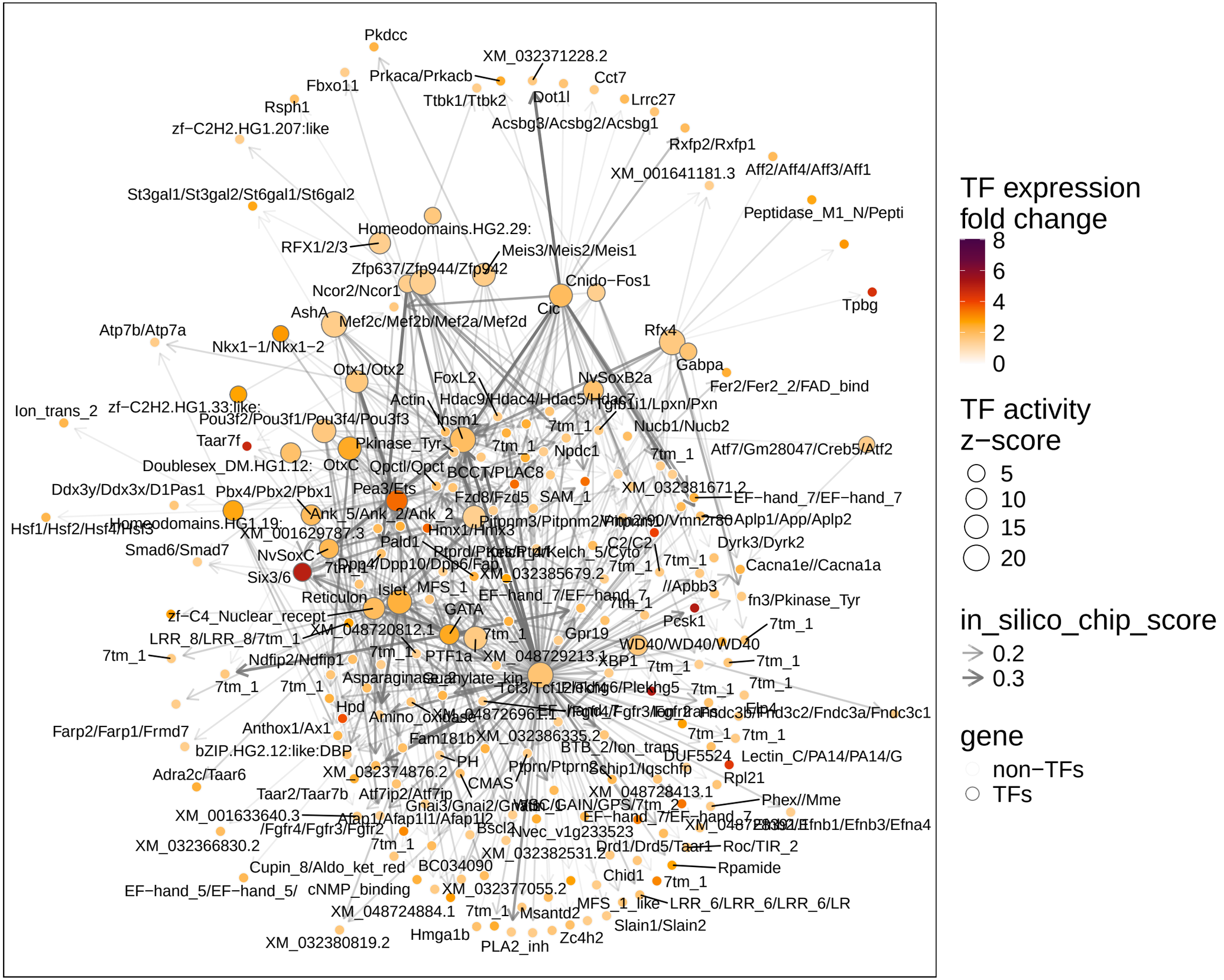

TF expression fold change

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4
2
0

TF activity z−score

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15
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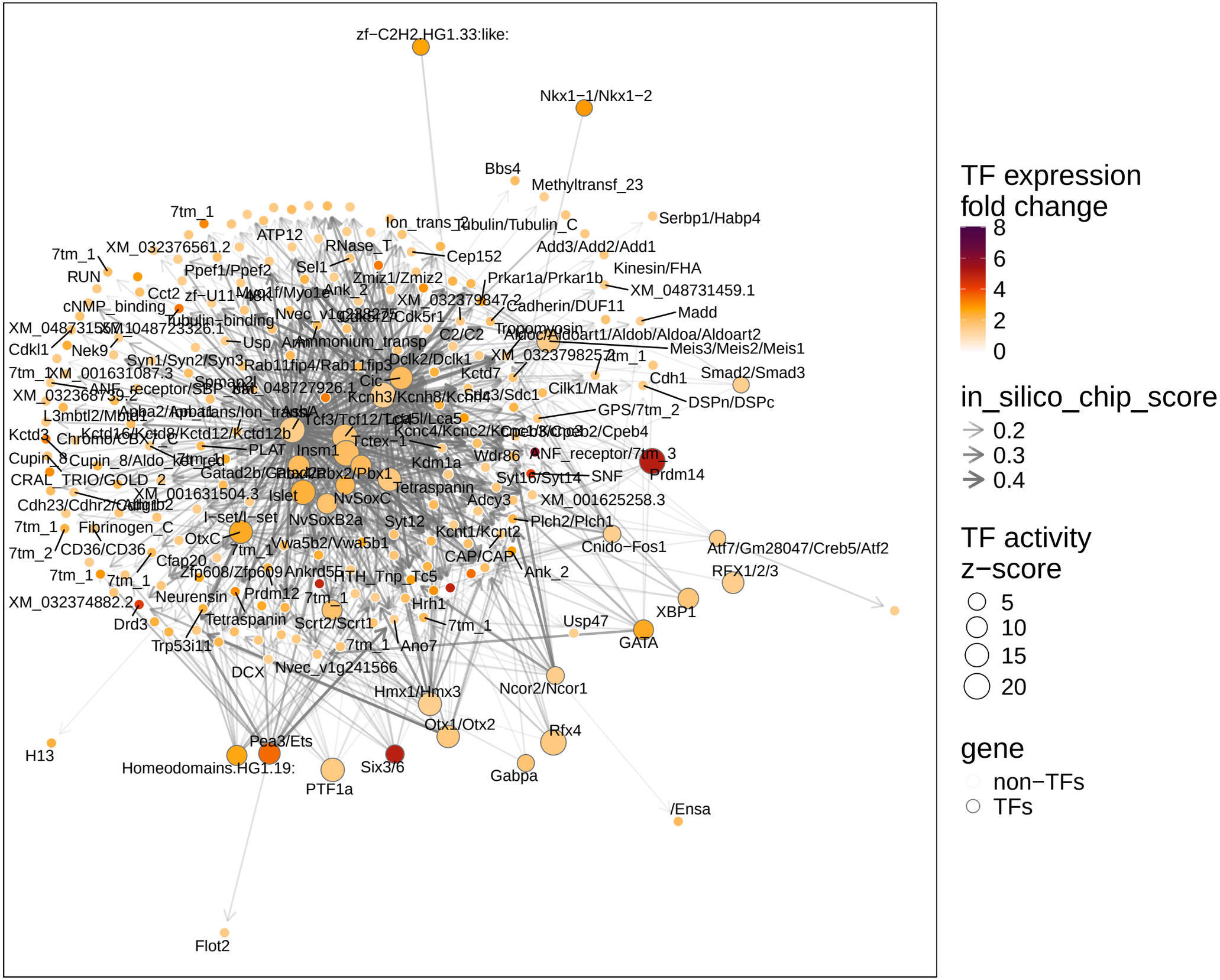
in_silico_chip_score

0.2
0.3

gene

non−TFs
TFs

neuron GATA Islet 2 module 3



TF expression fold change

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2
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in_silico_chip_score

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TF activity z−score

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non−TFs
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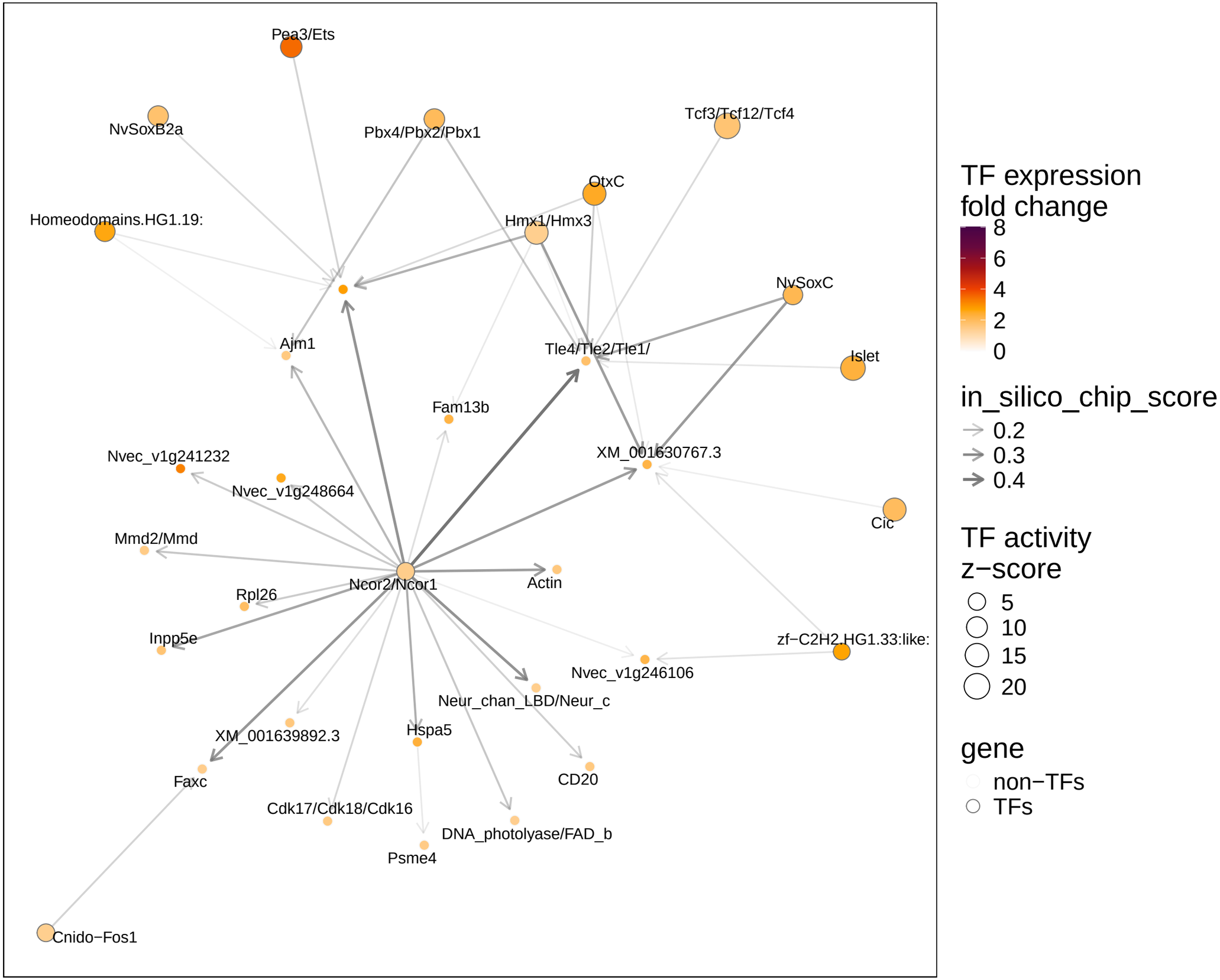

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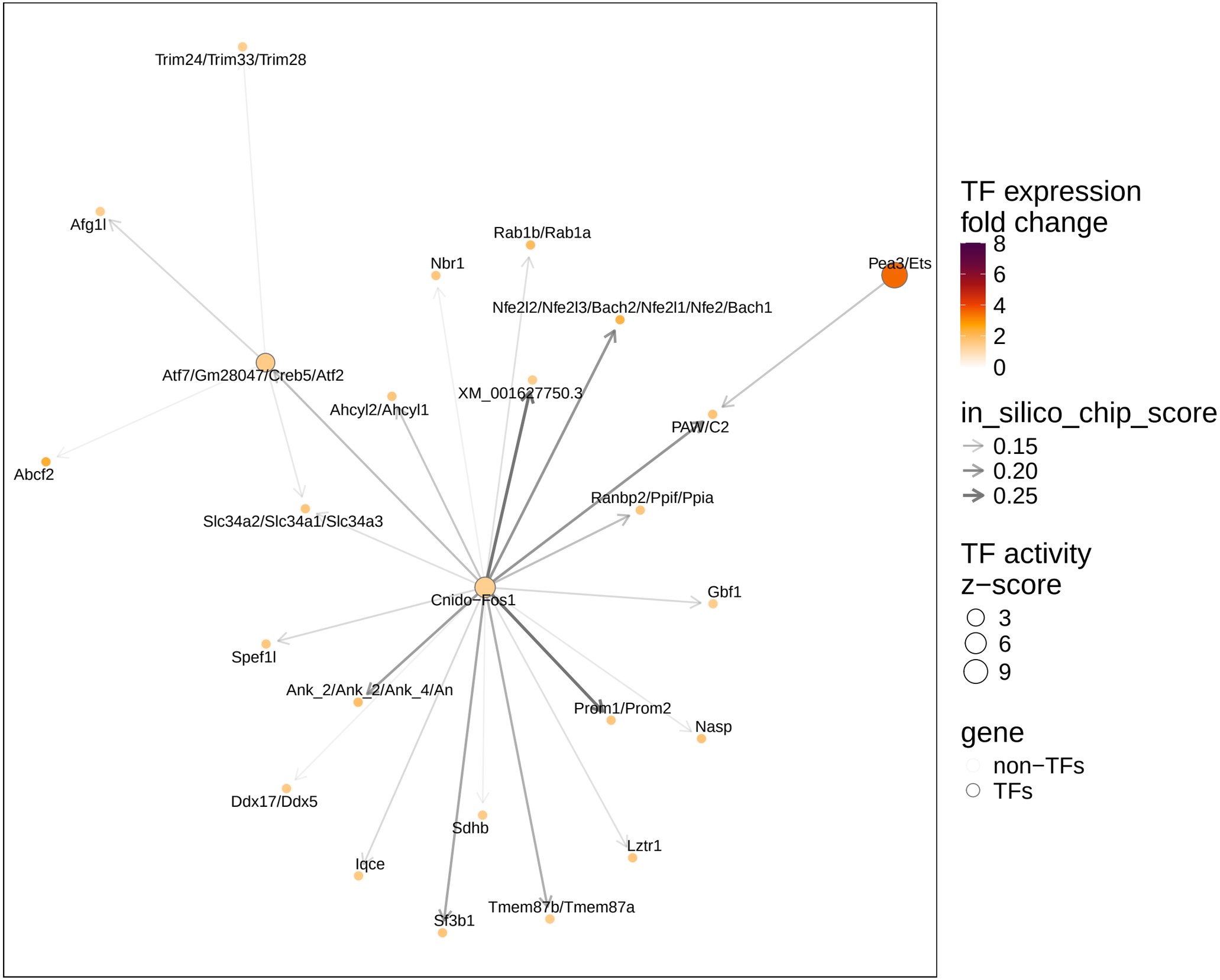

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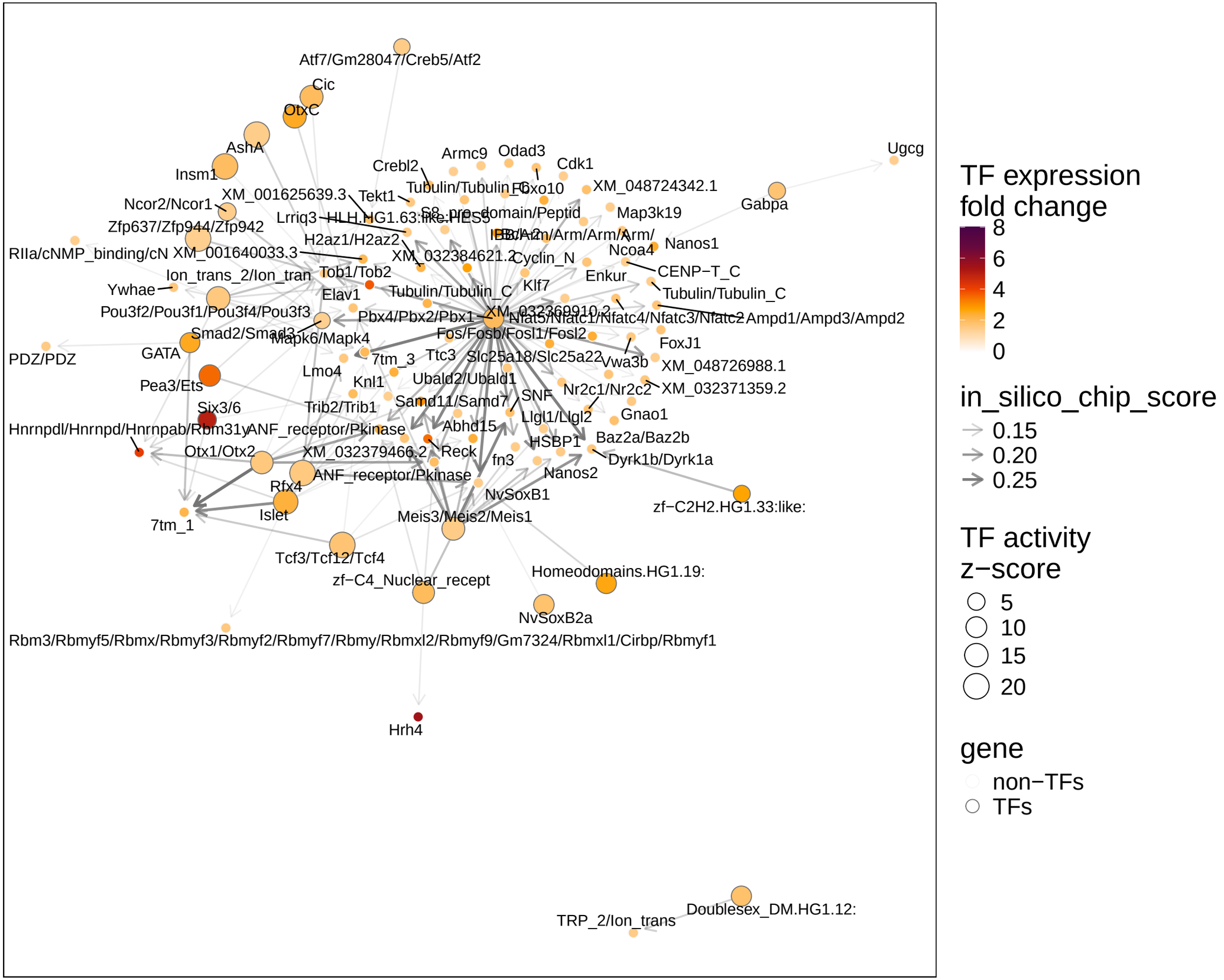

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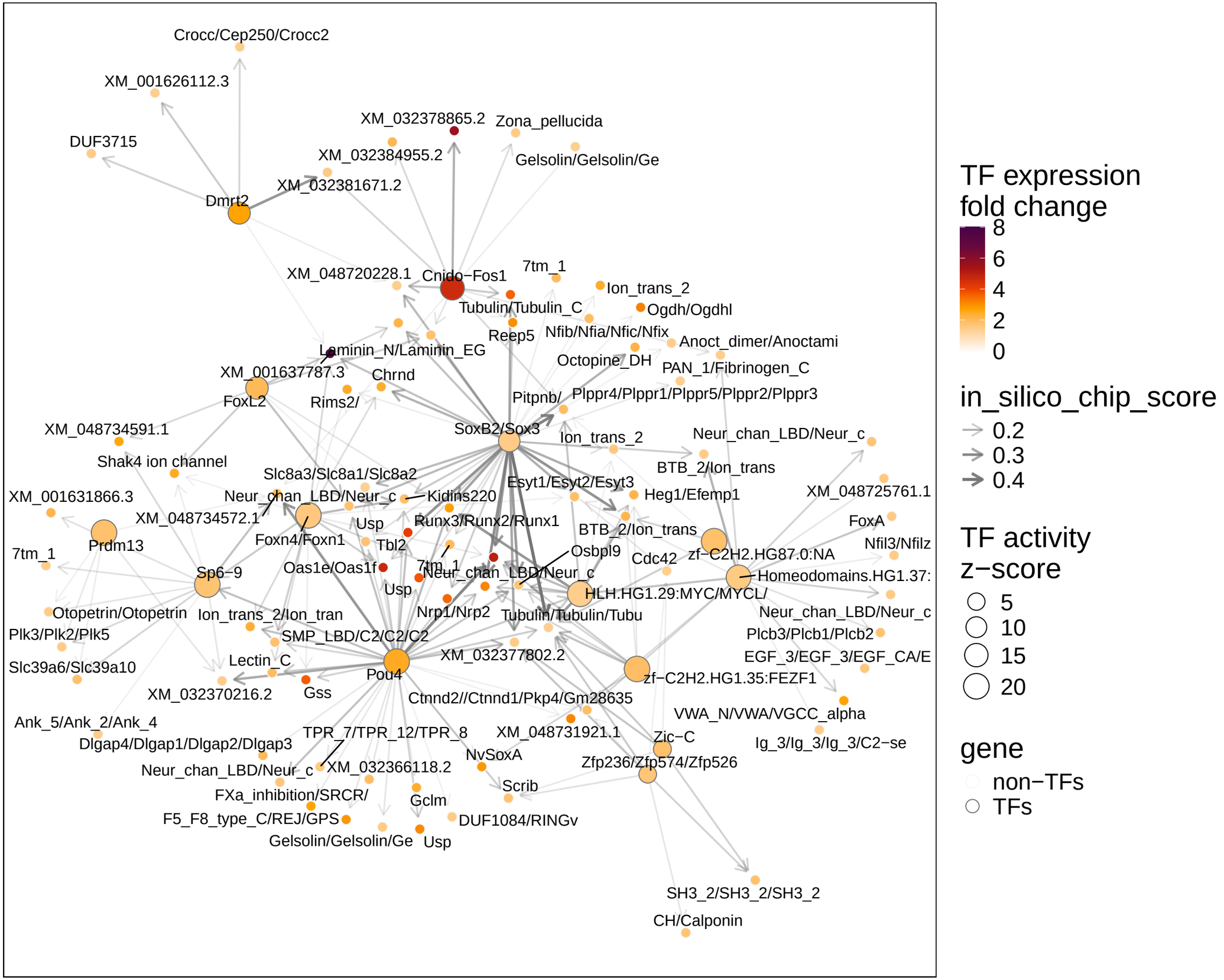

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15
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gene

non−TFs
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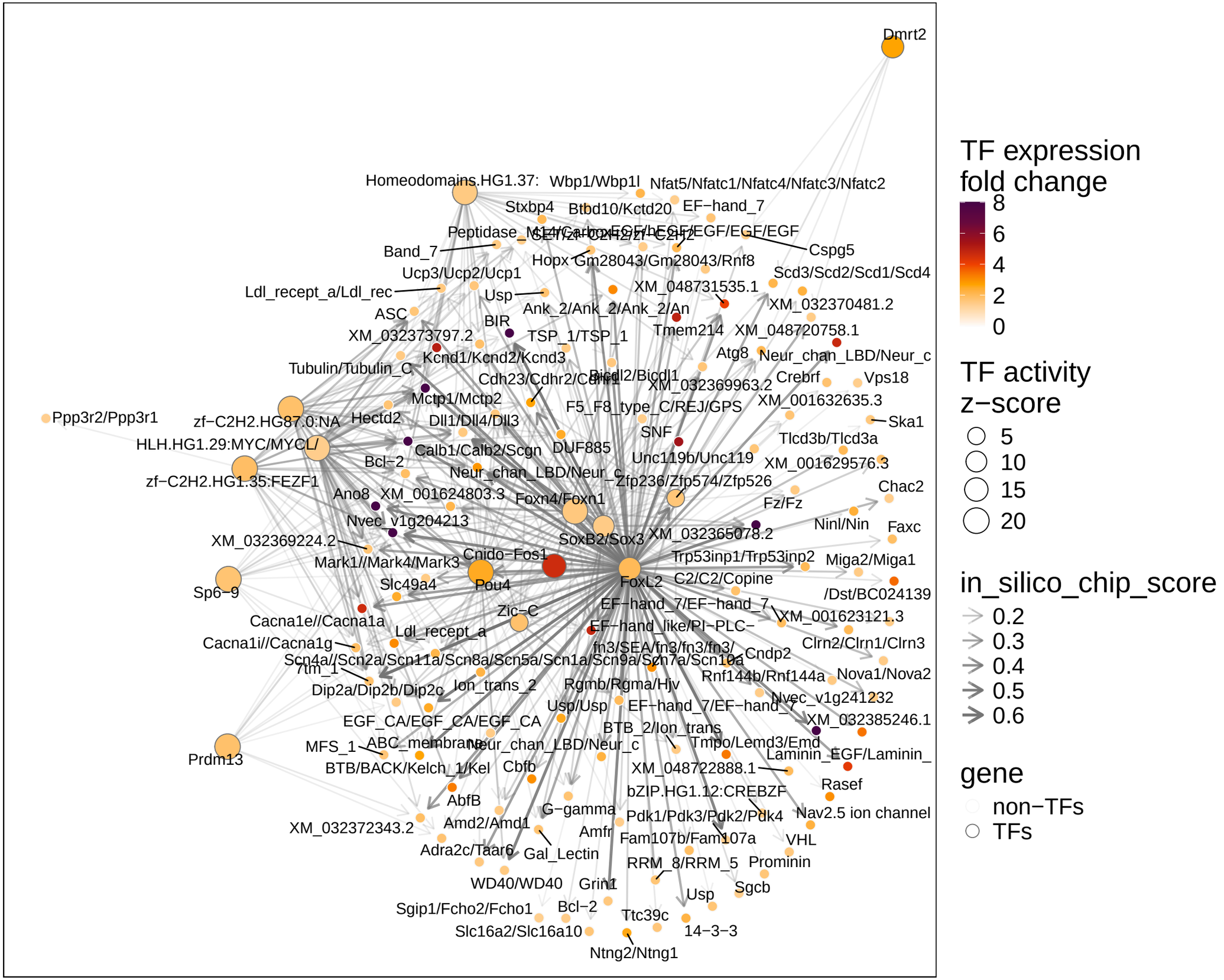

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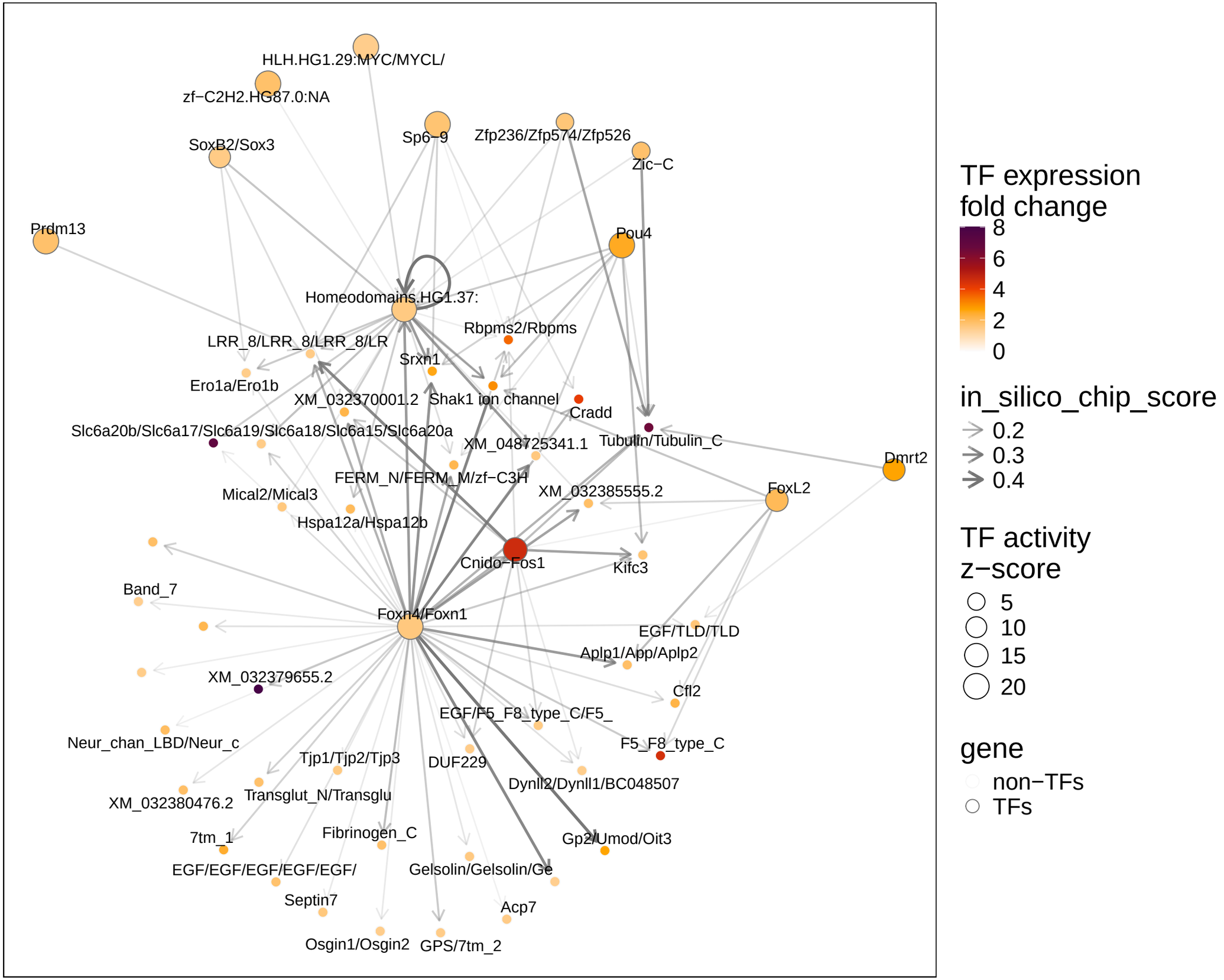

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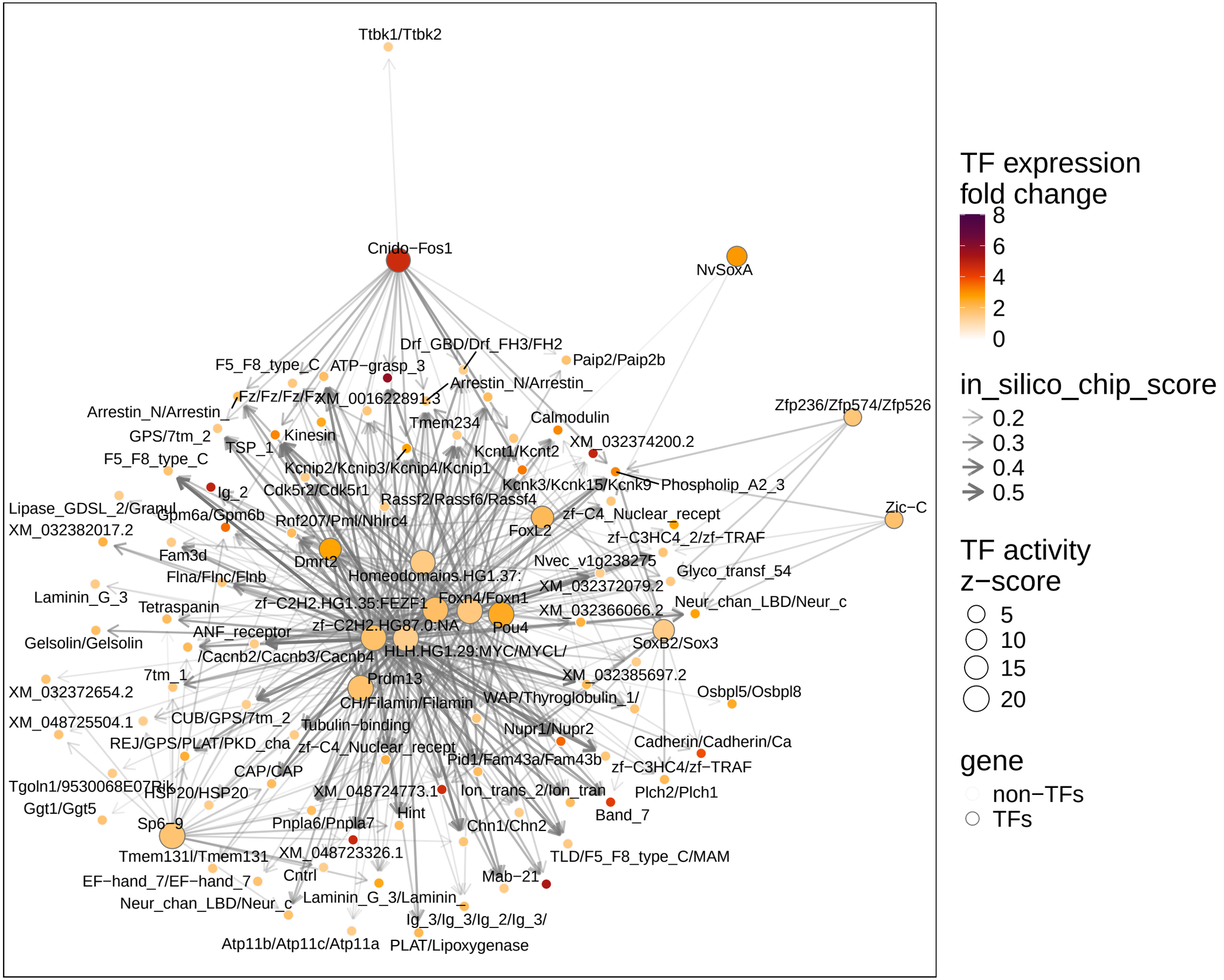

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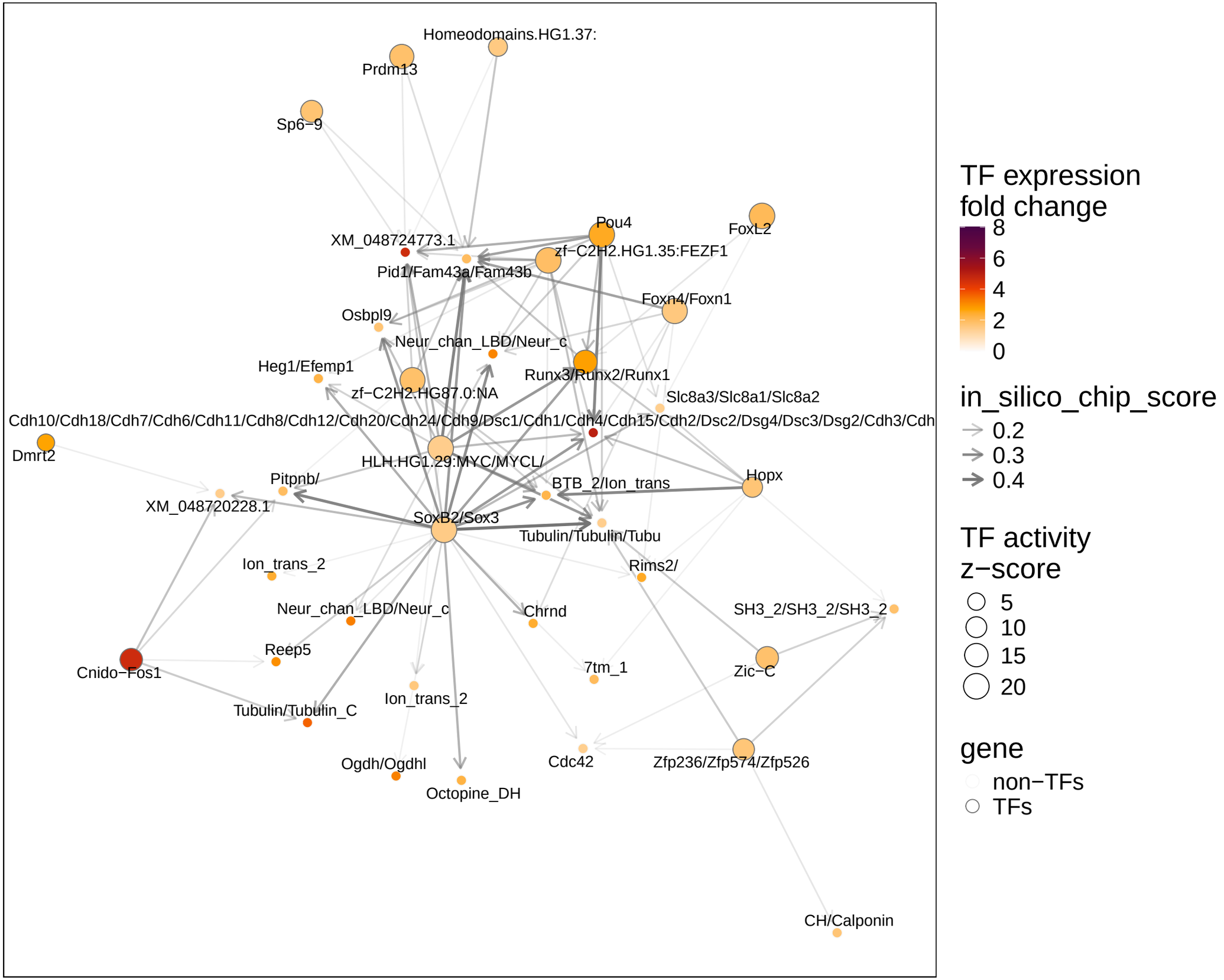

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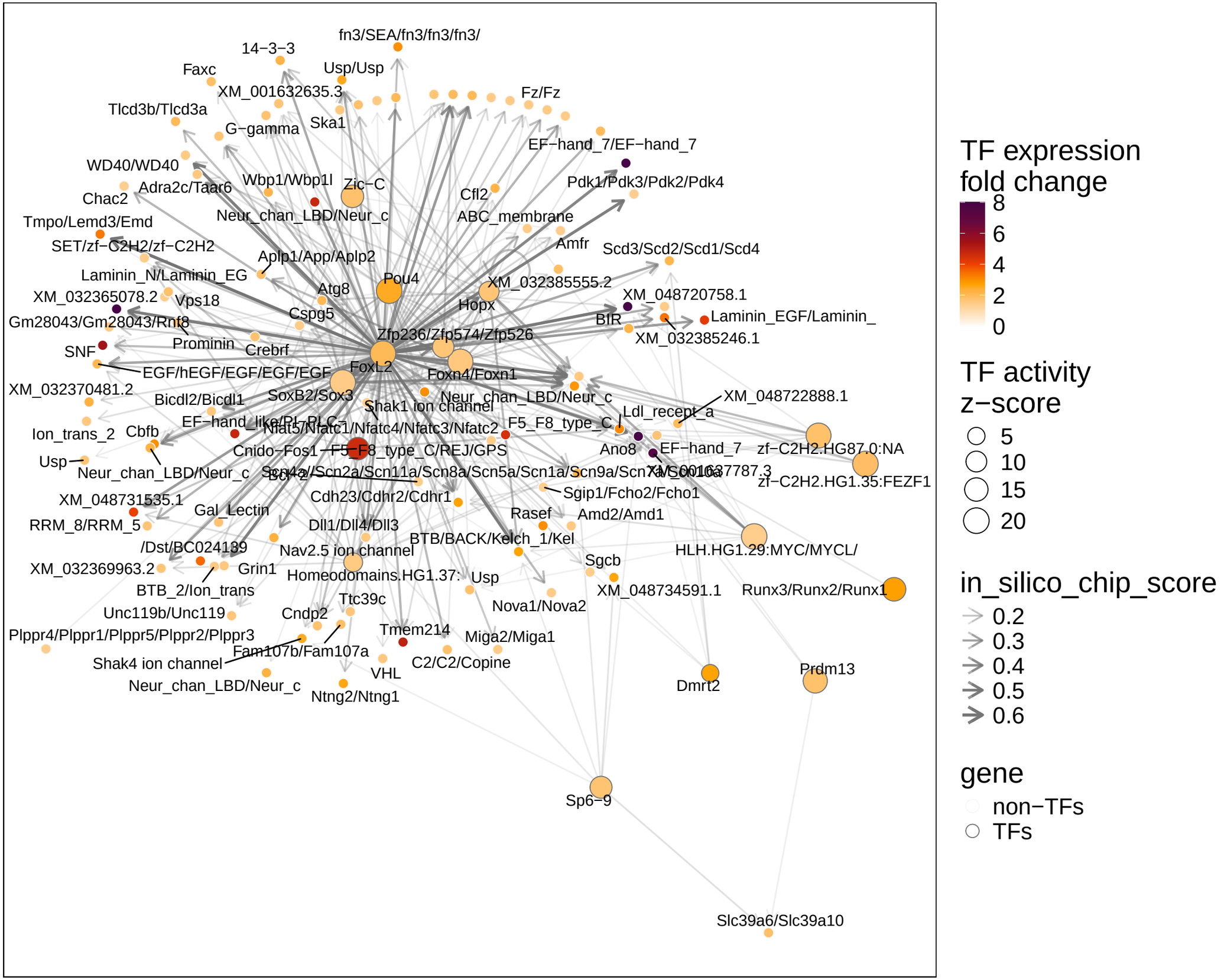

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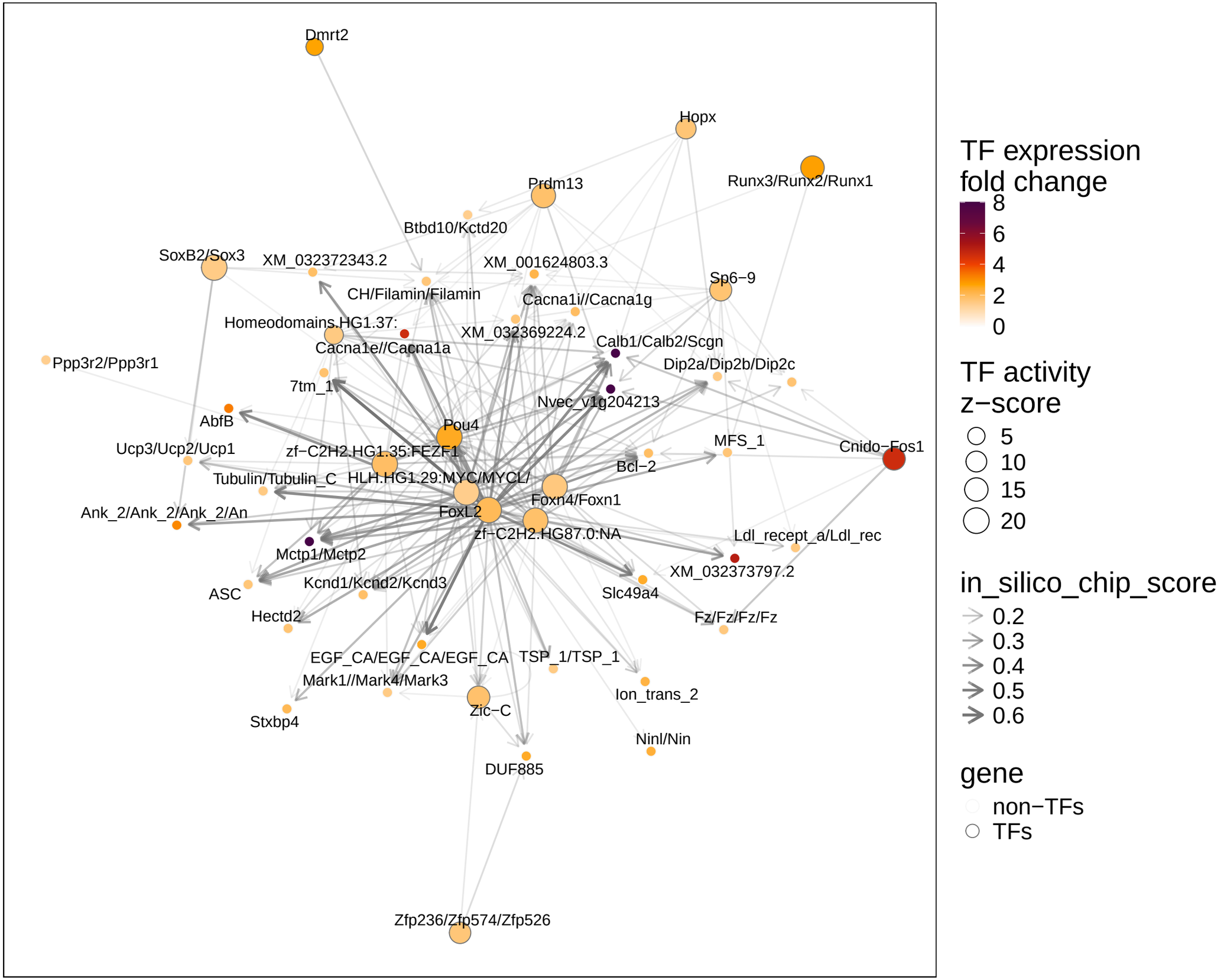

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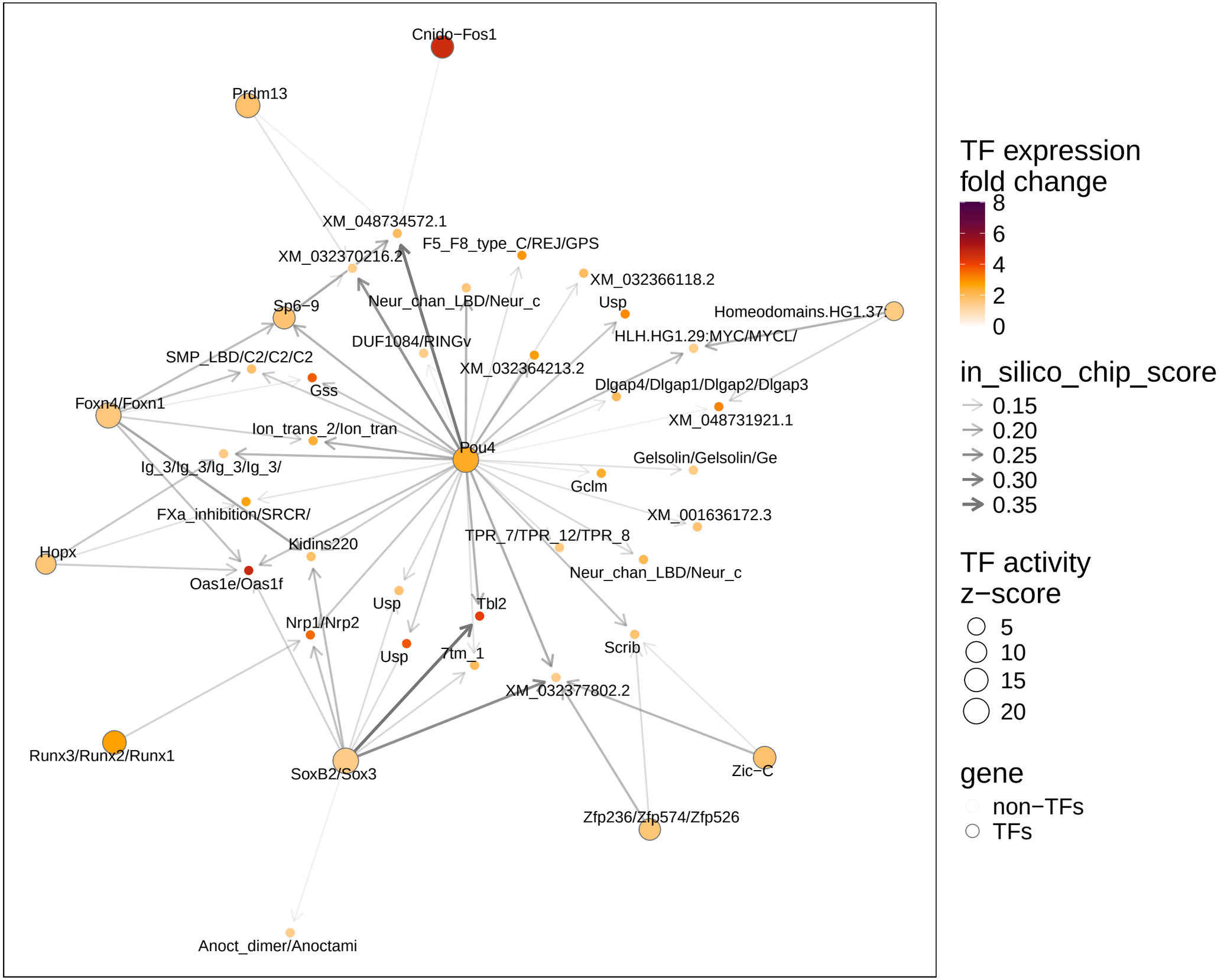

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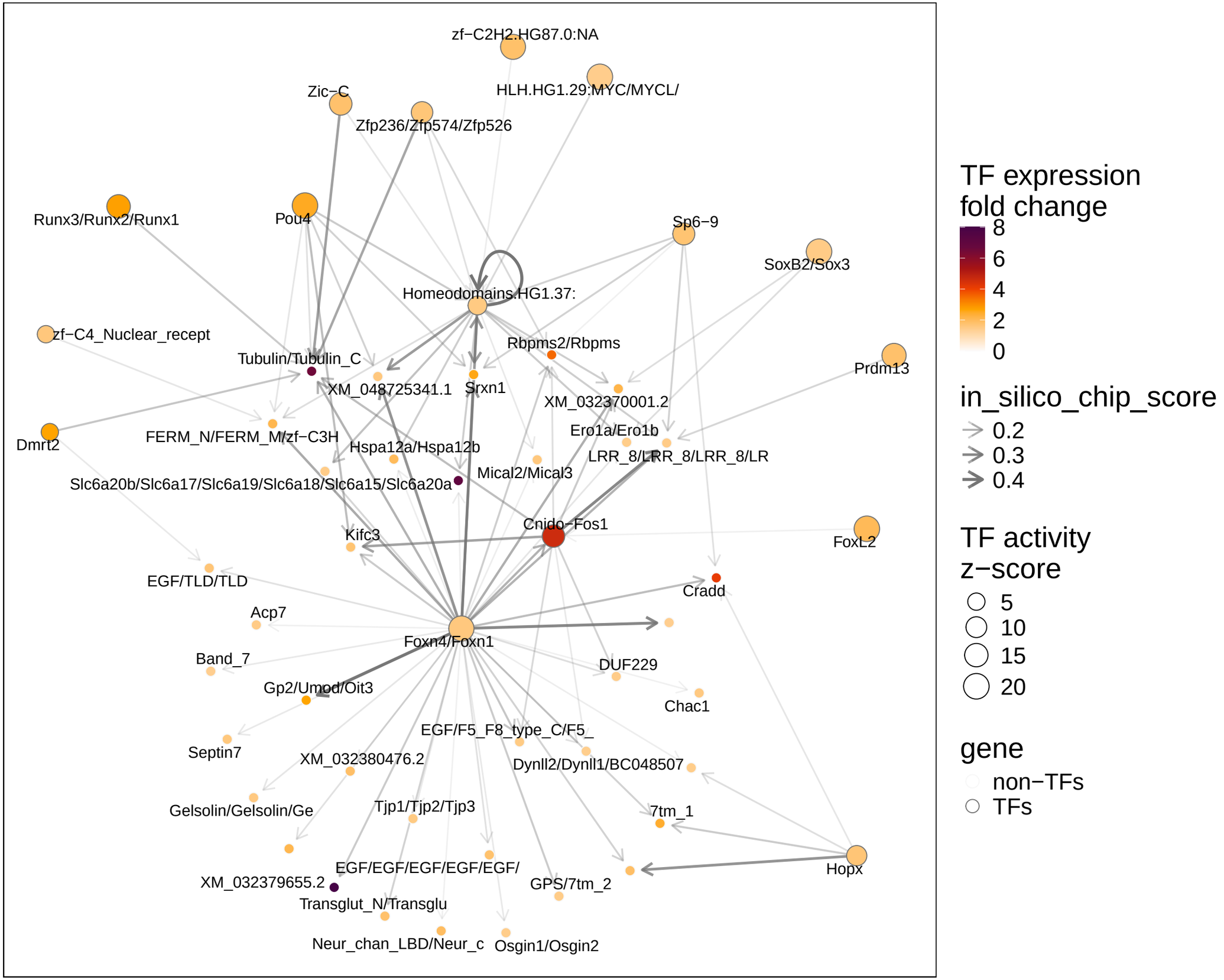

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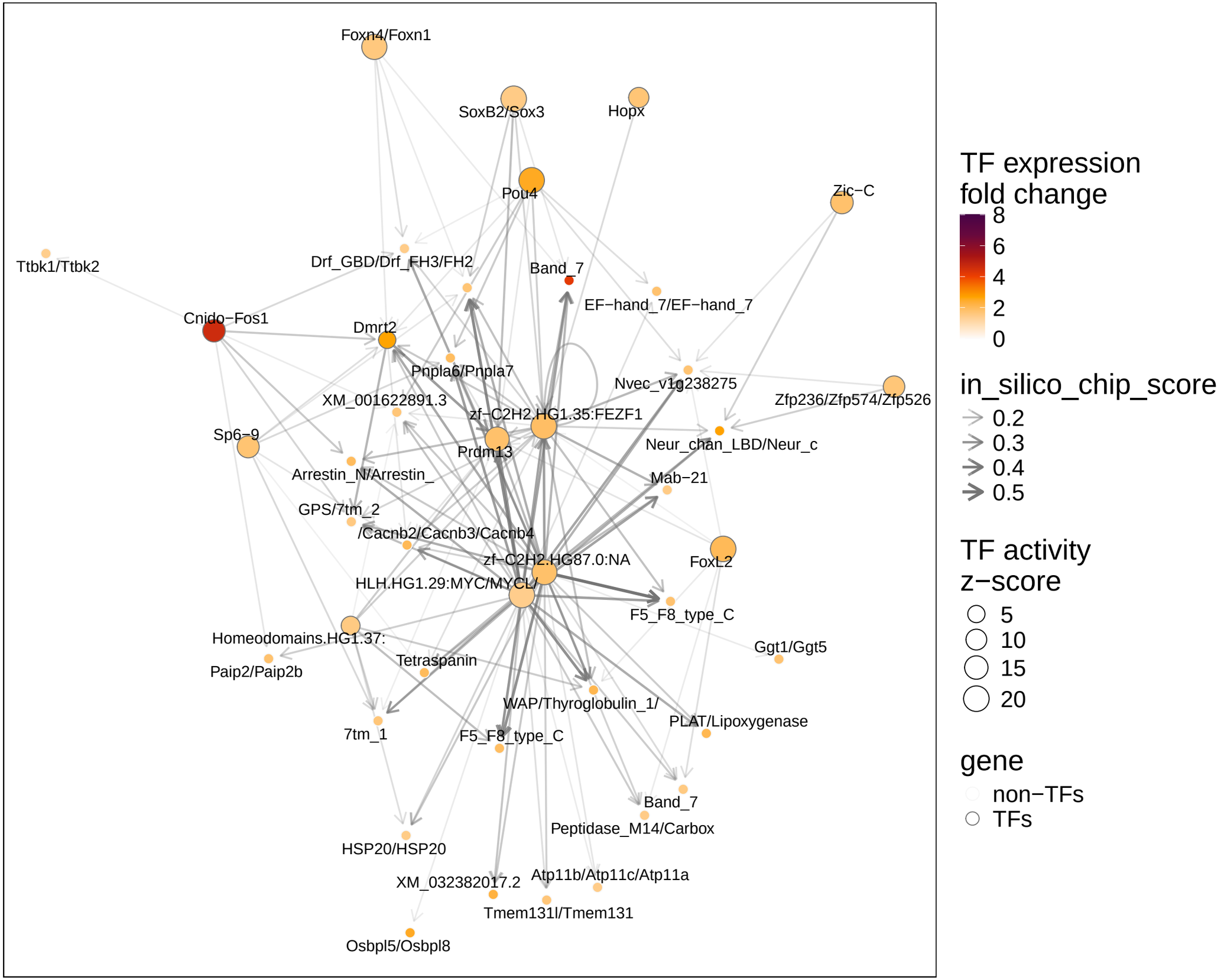

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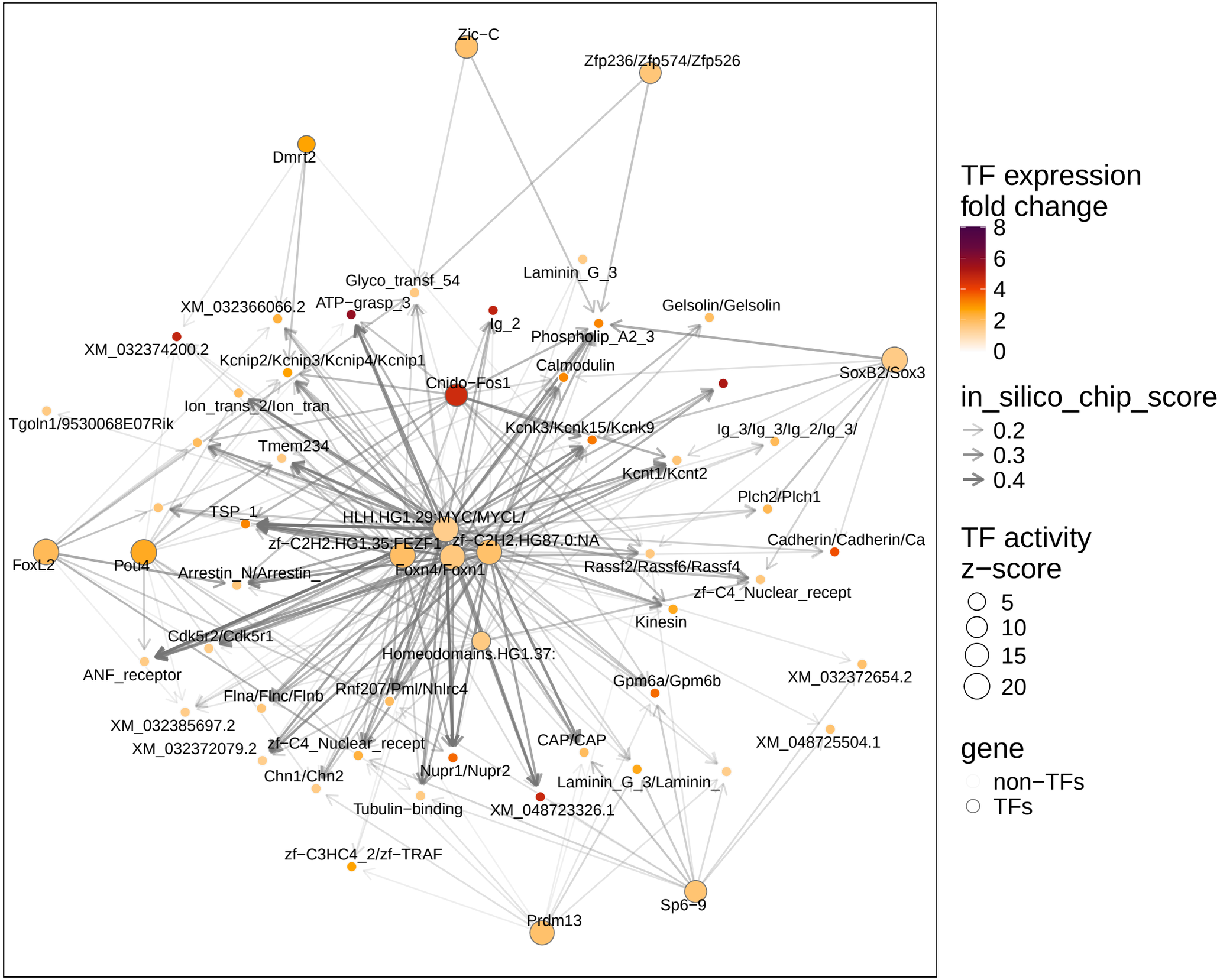

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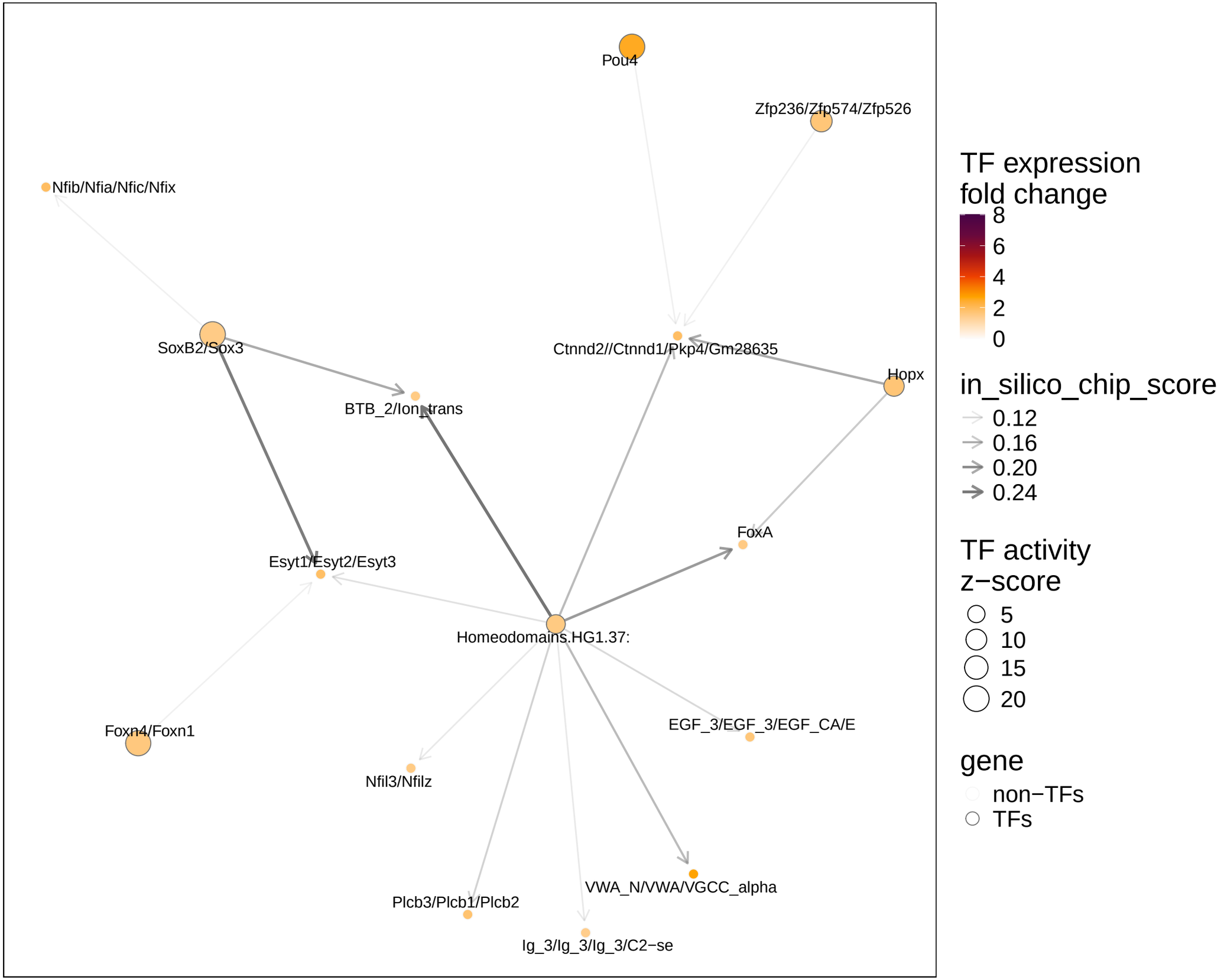

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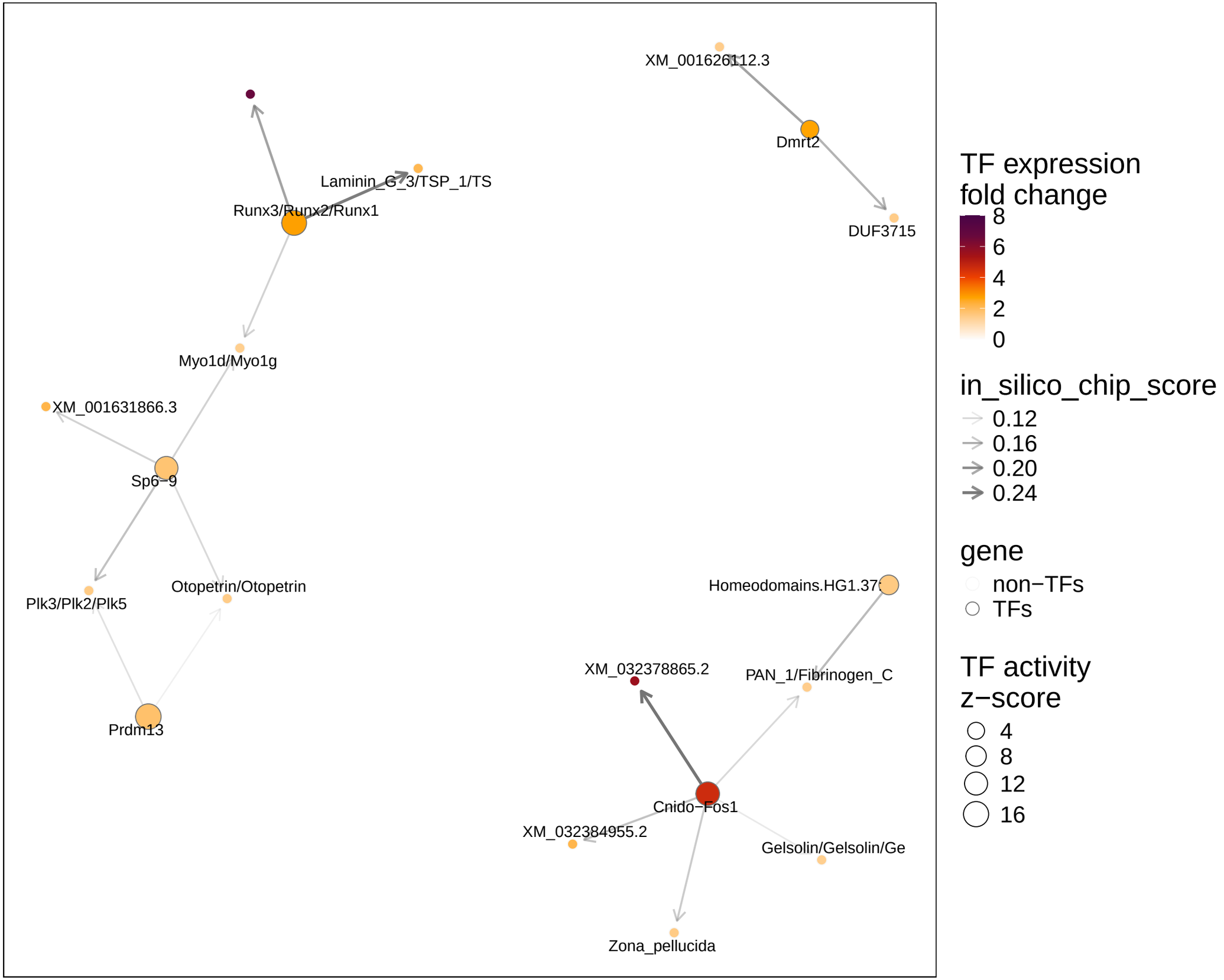

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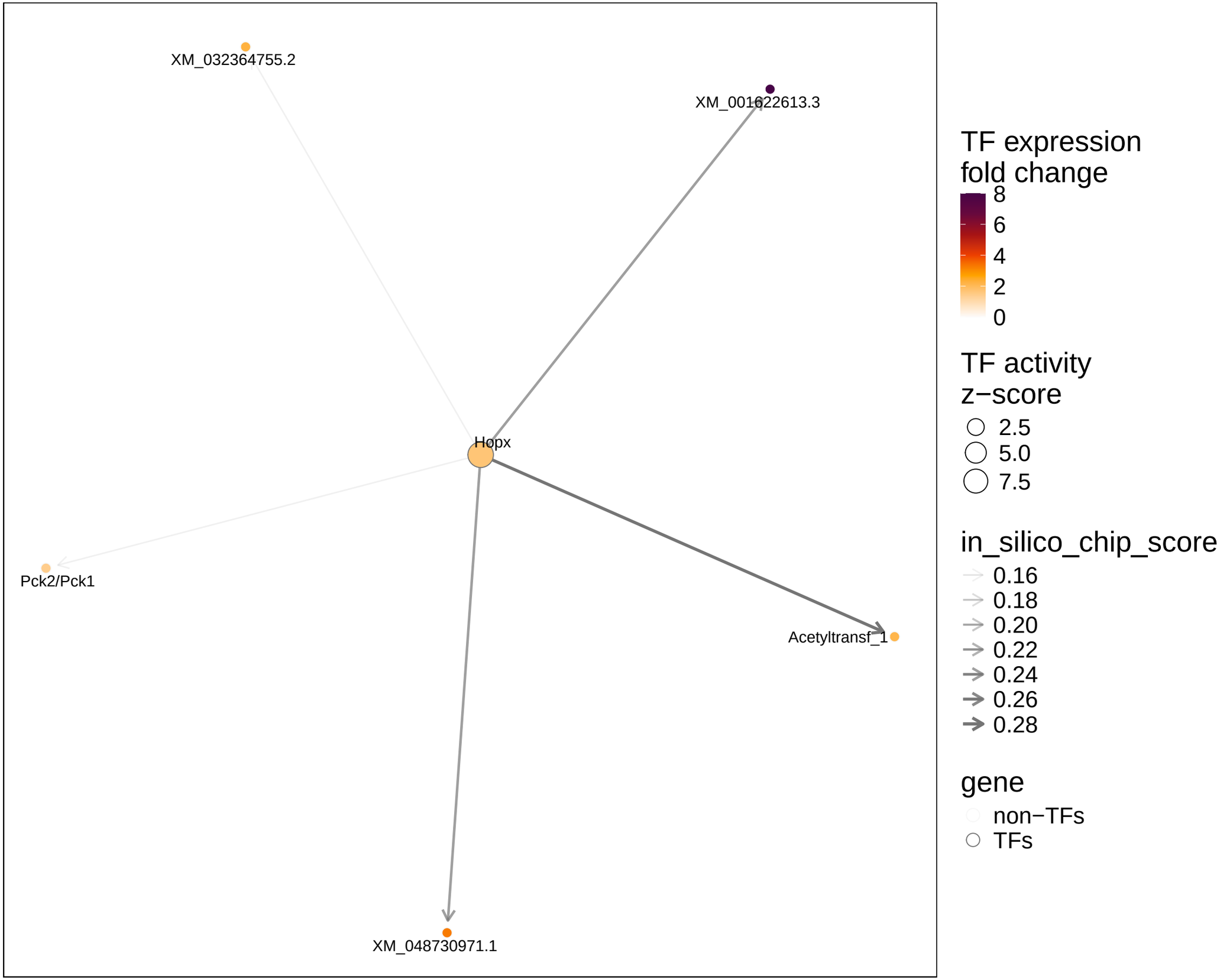

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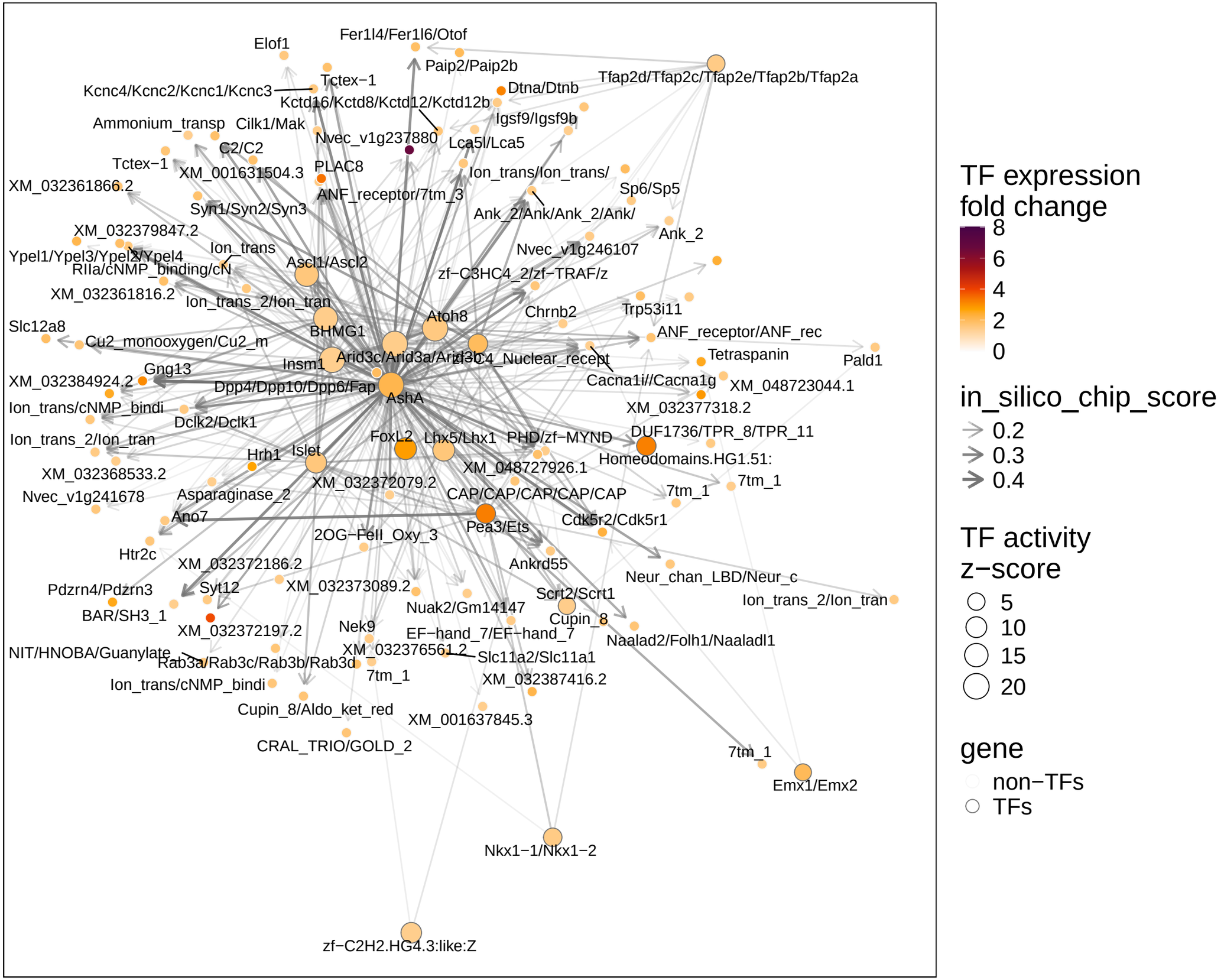

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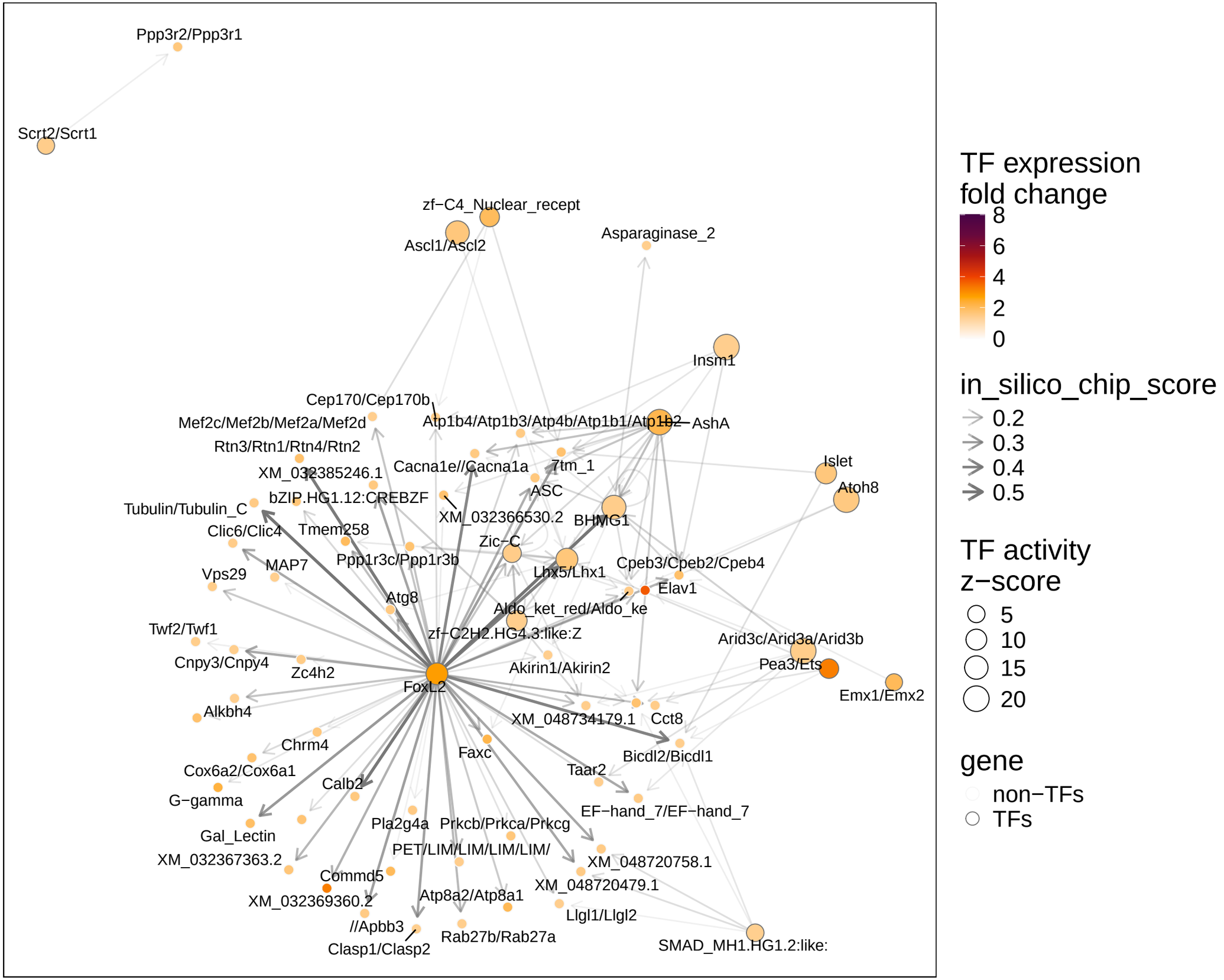

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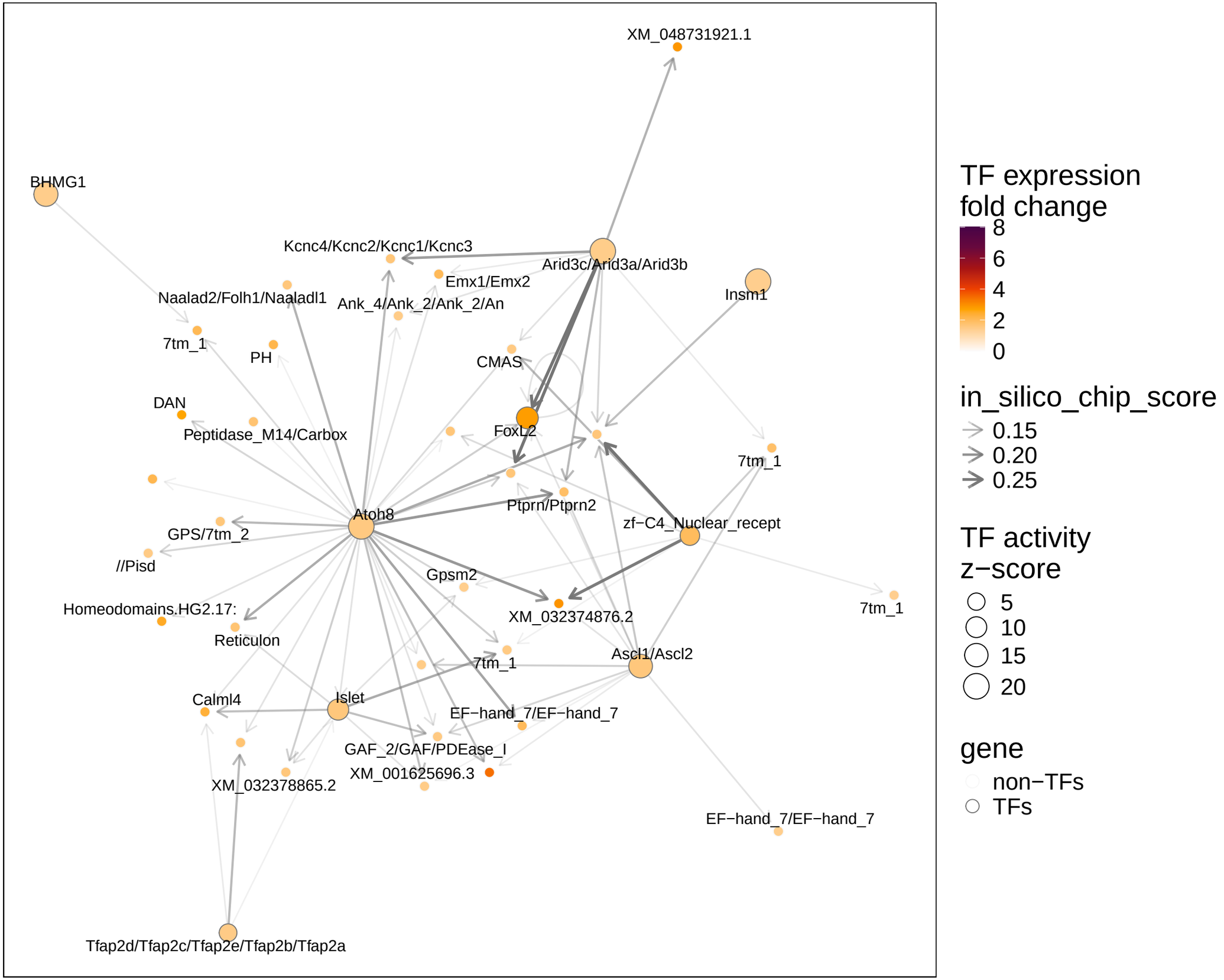

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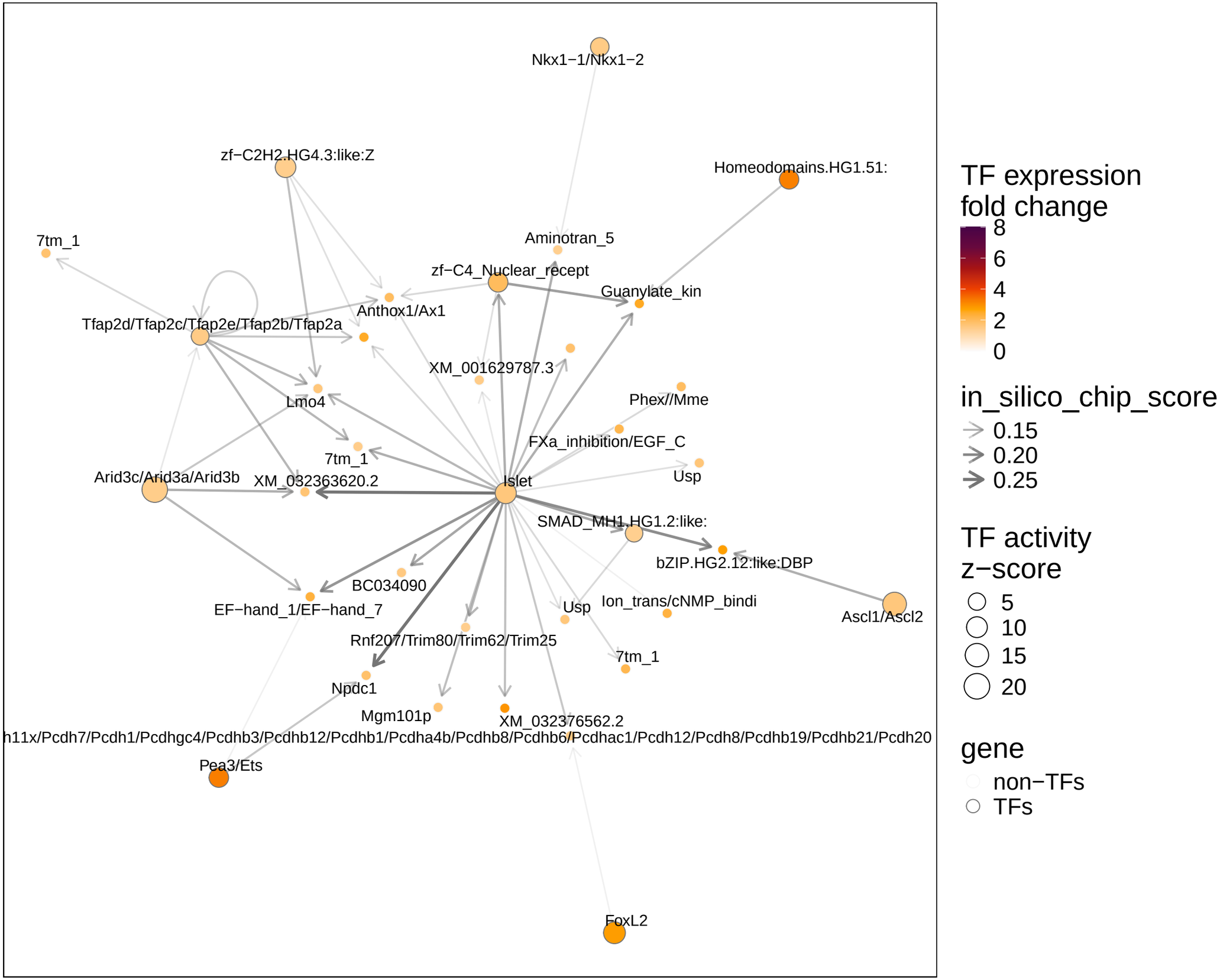

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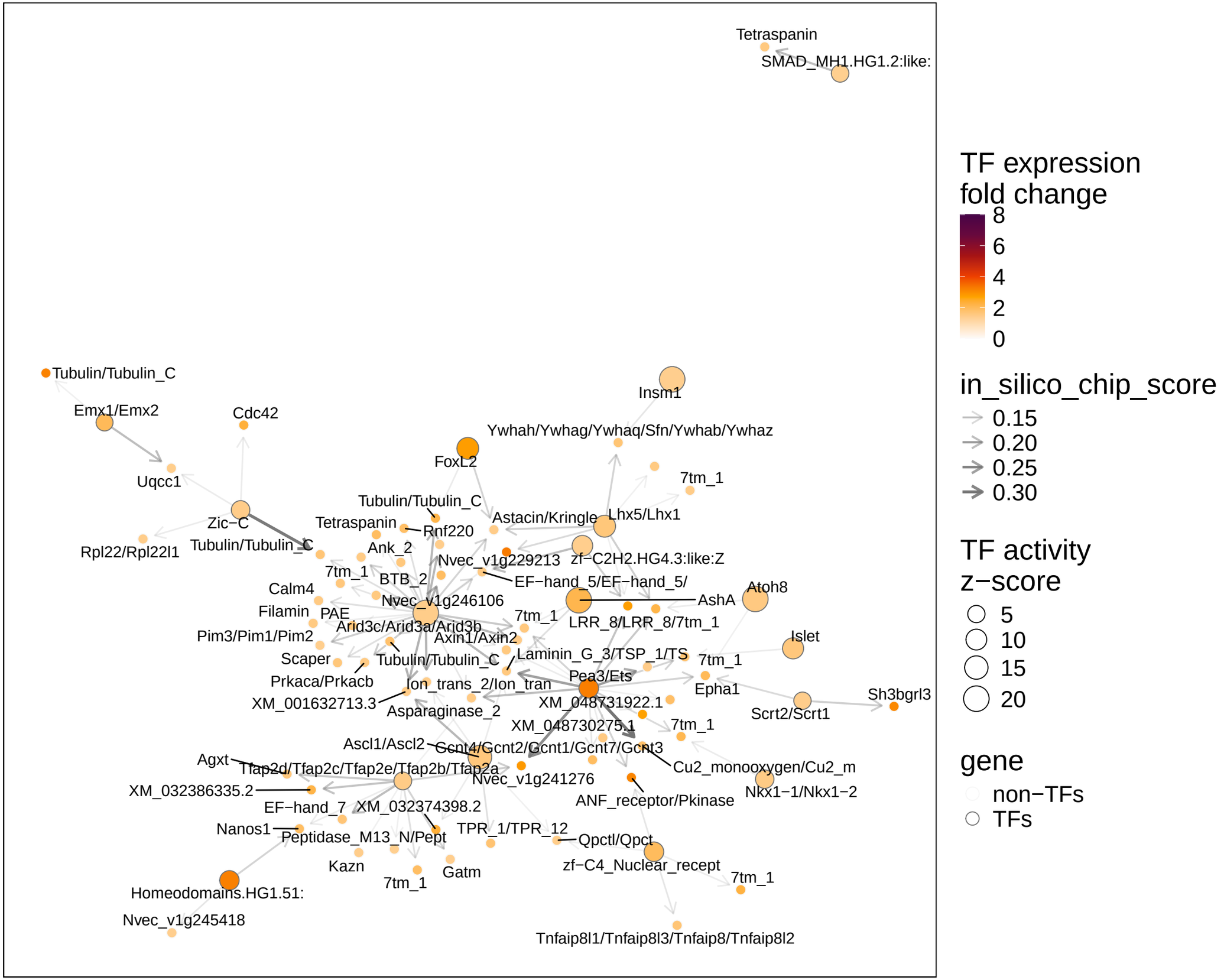

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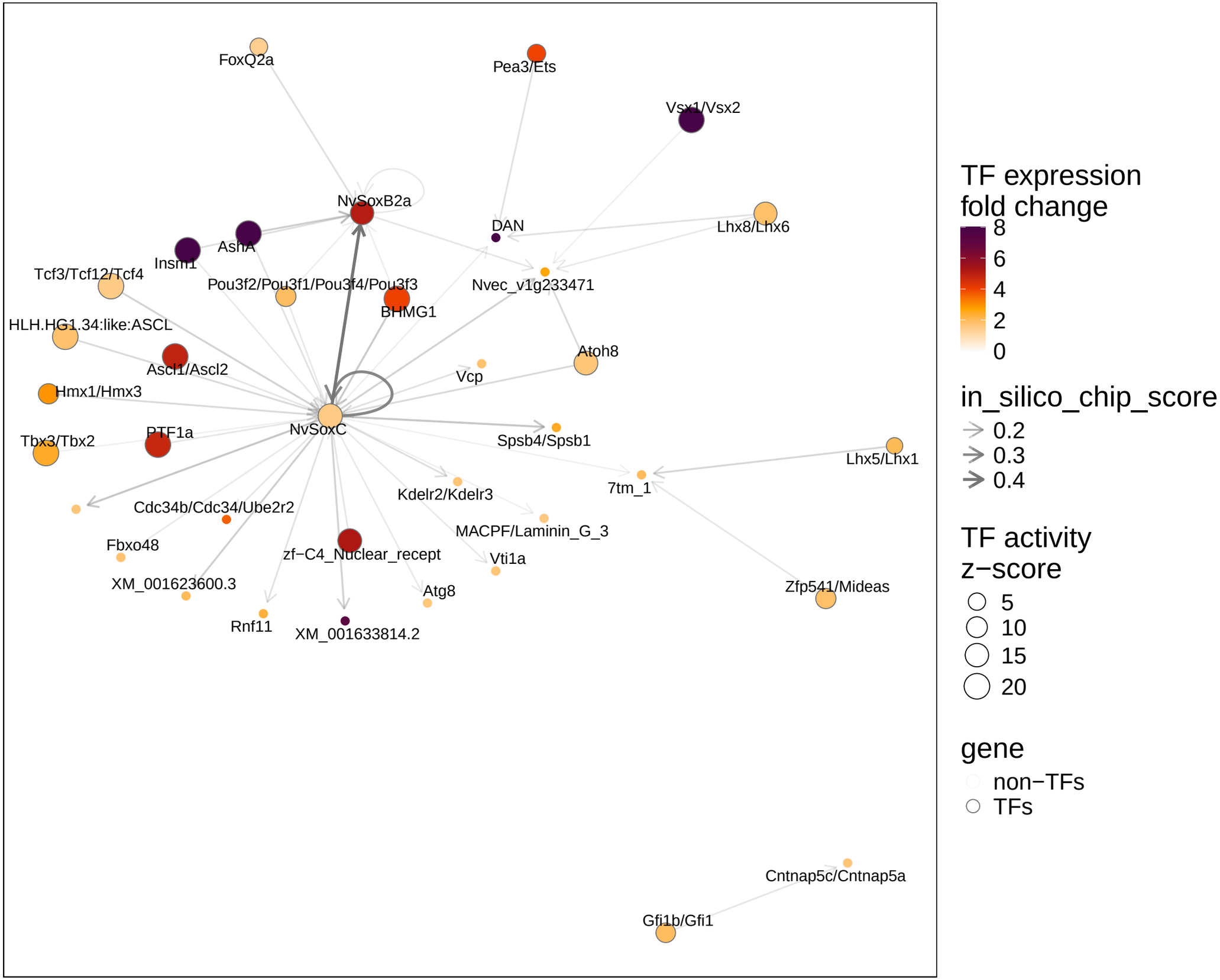

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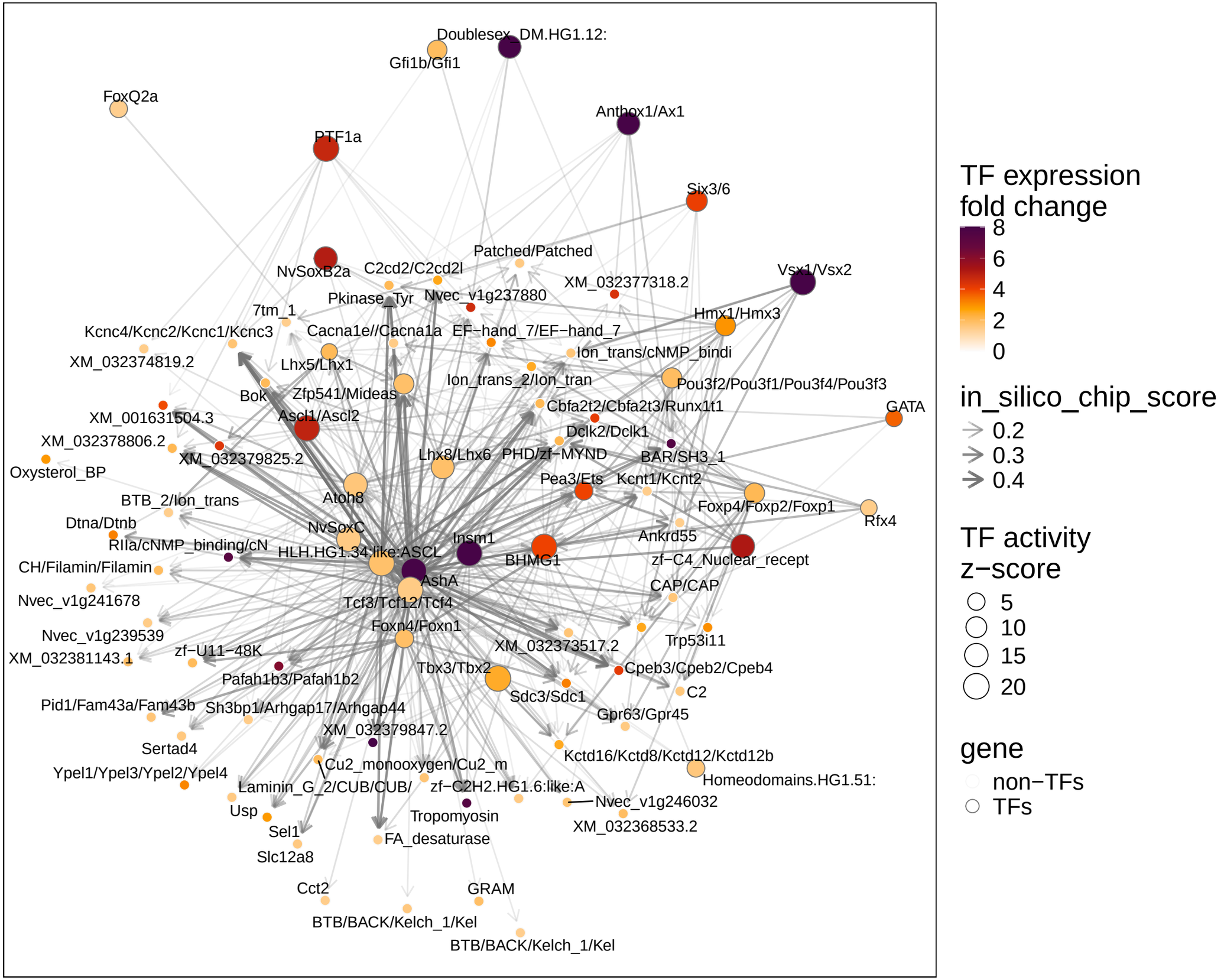

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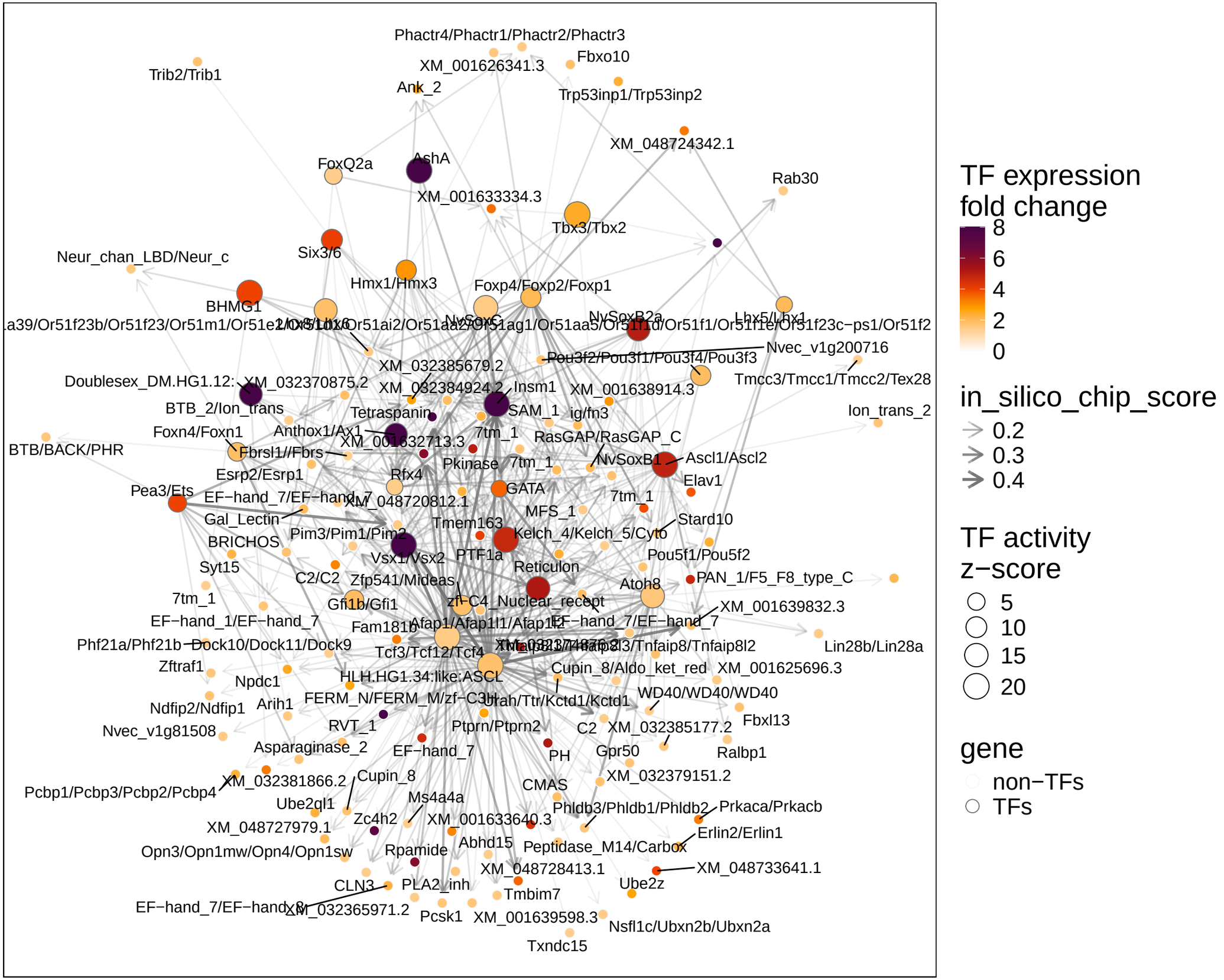

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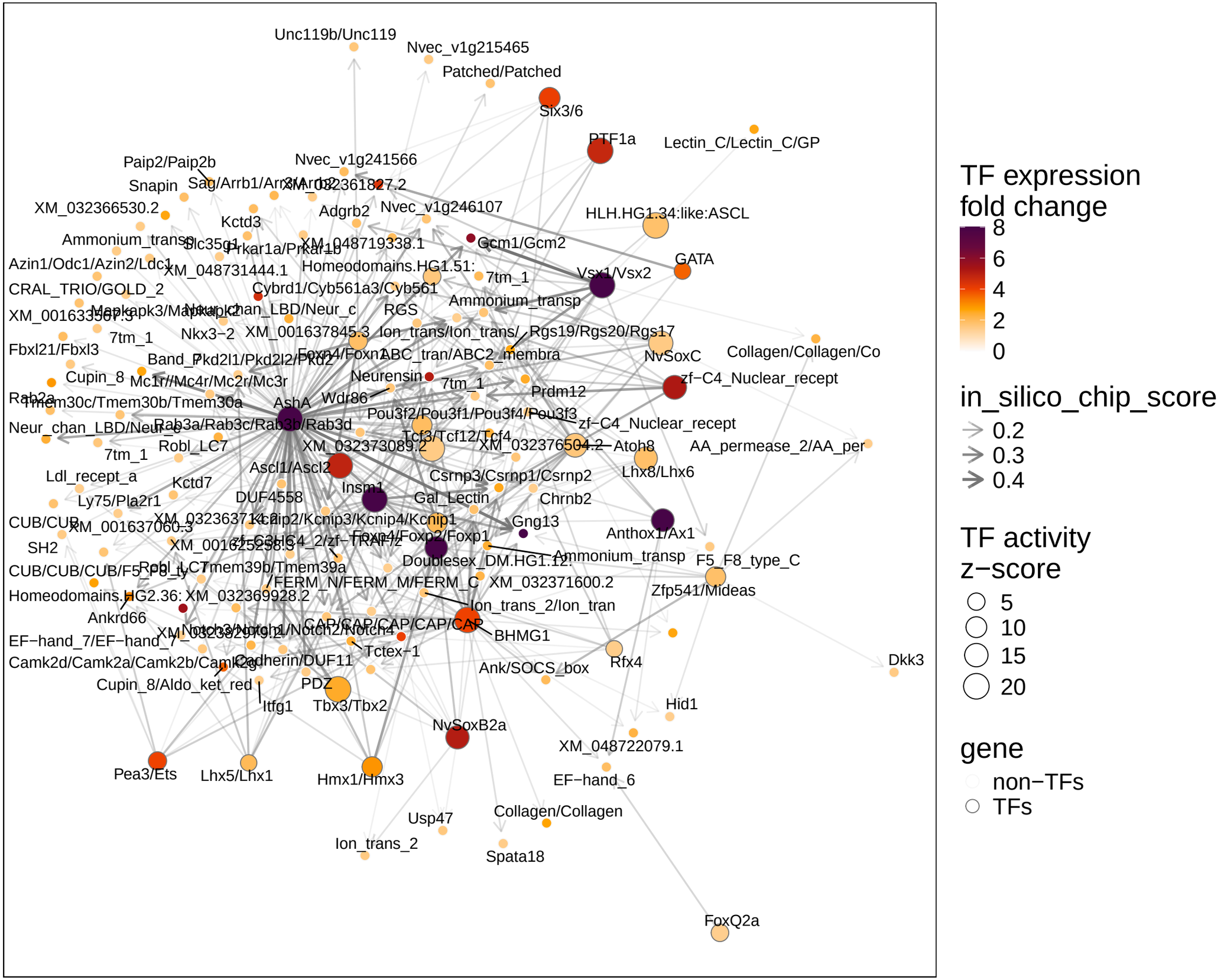

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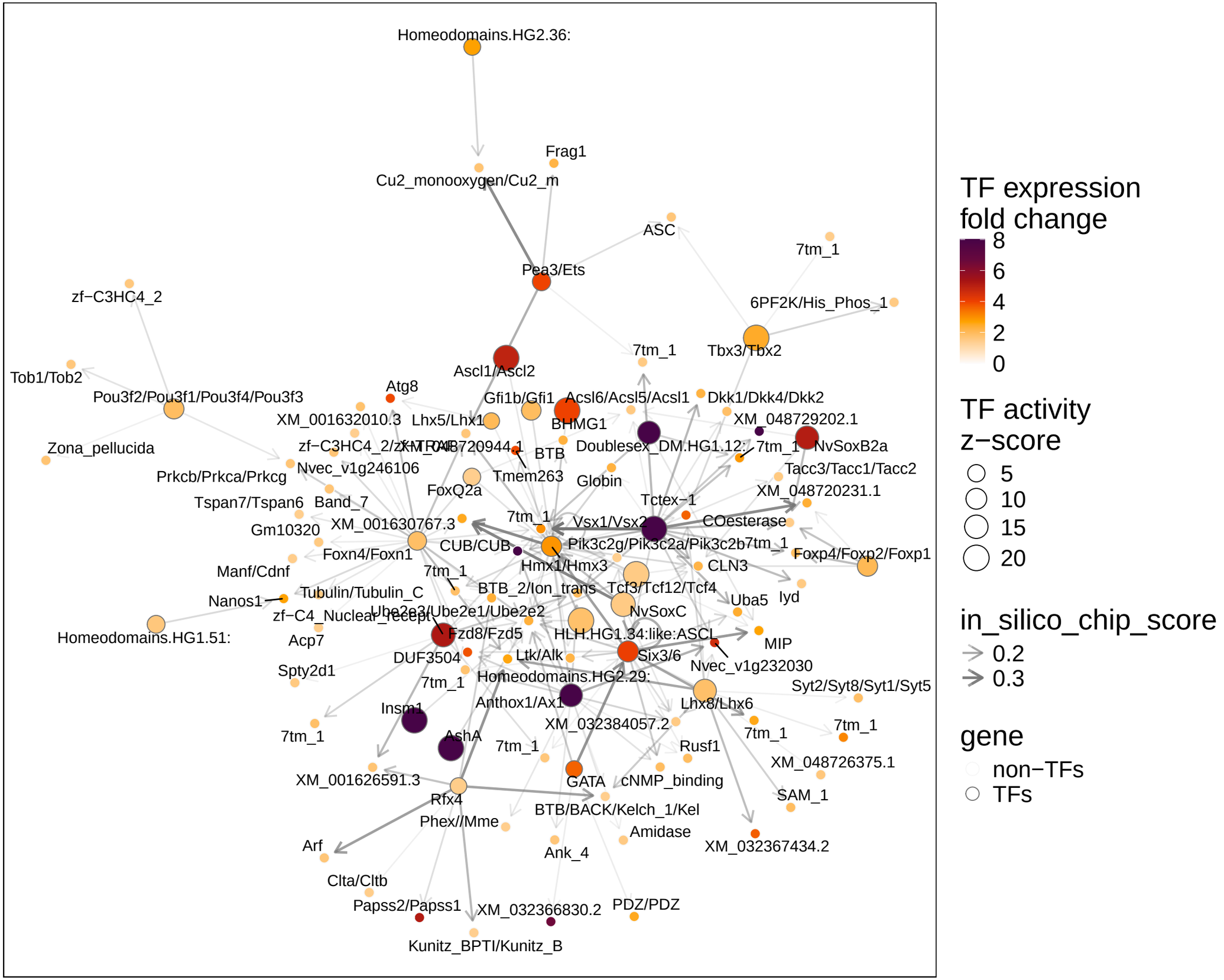

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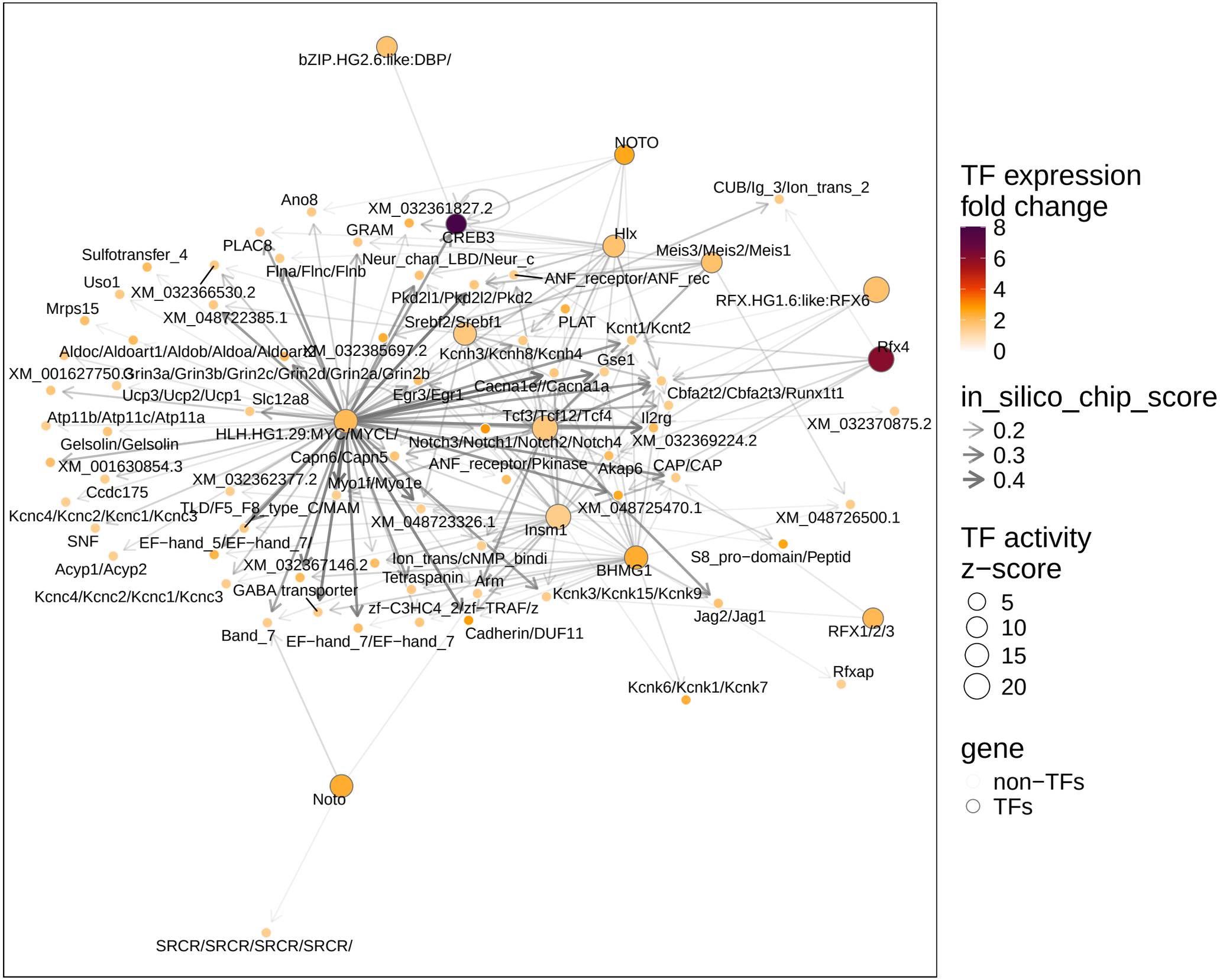

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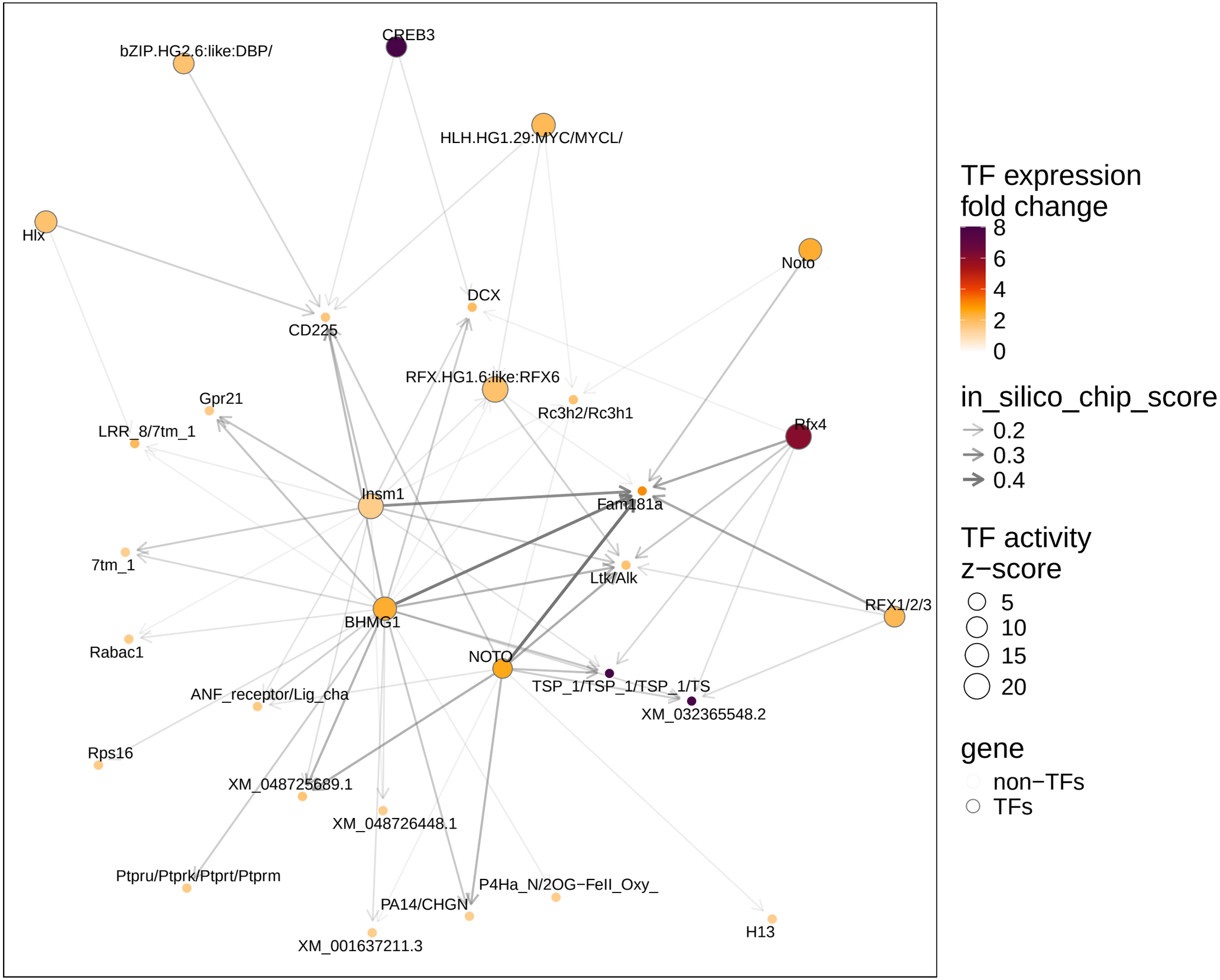

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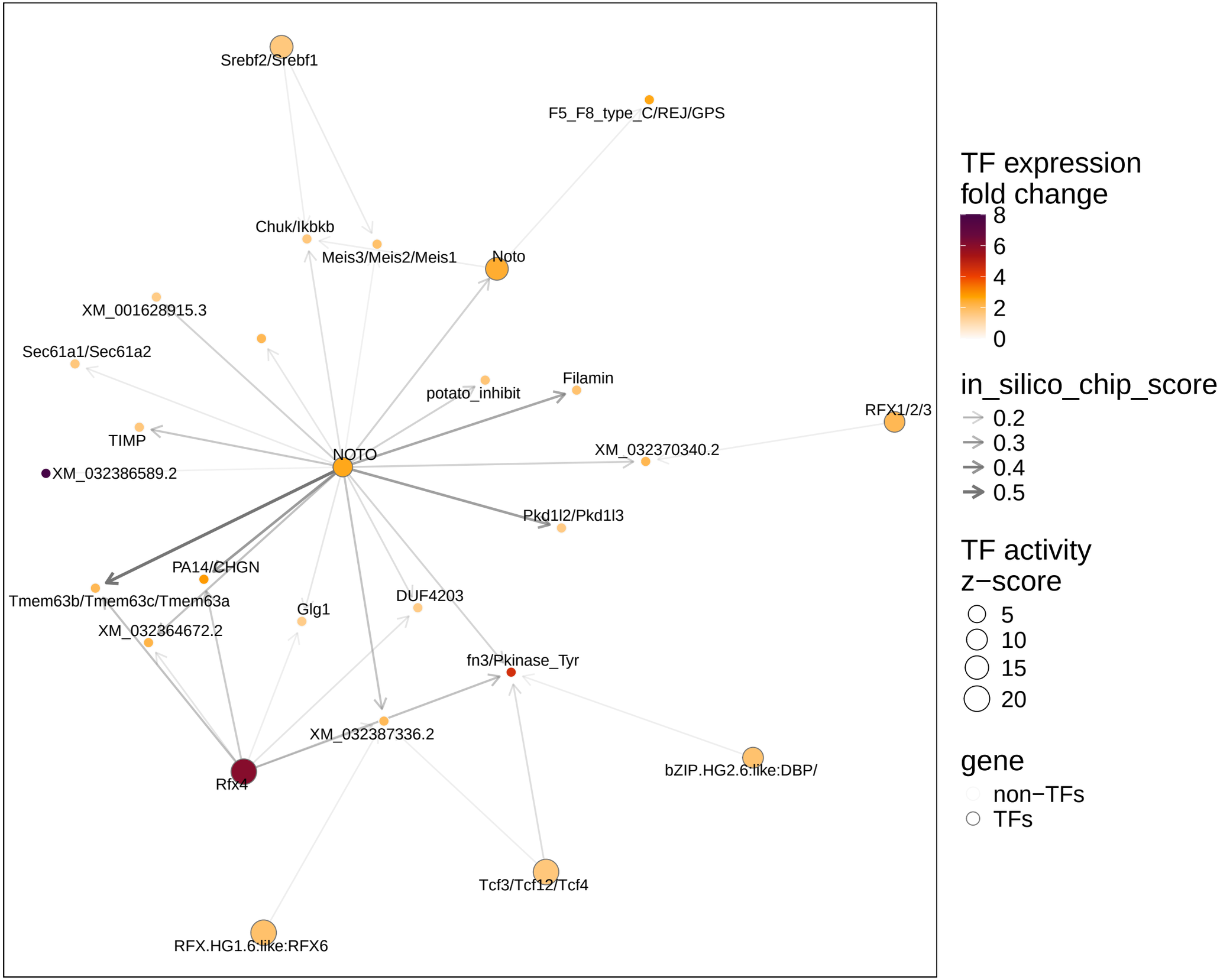

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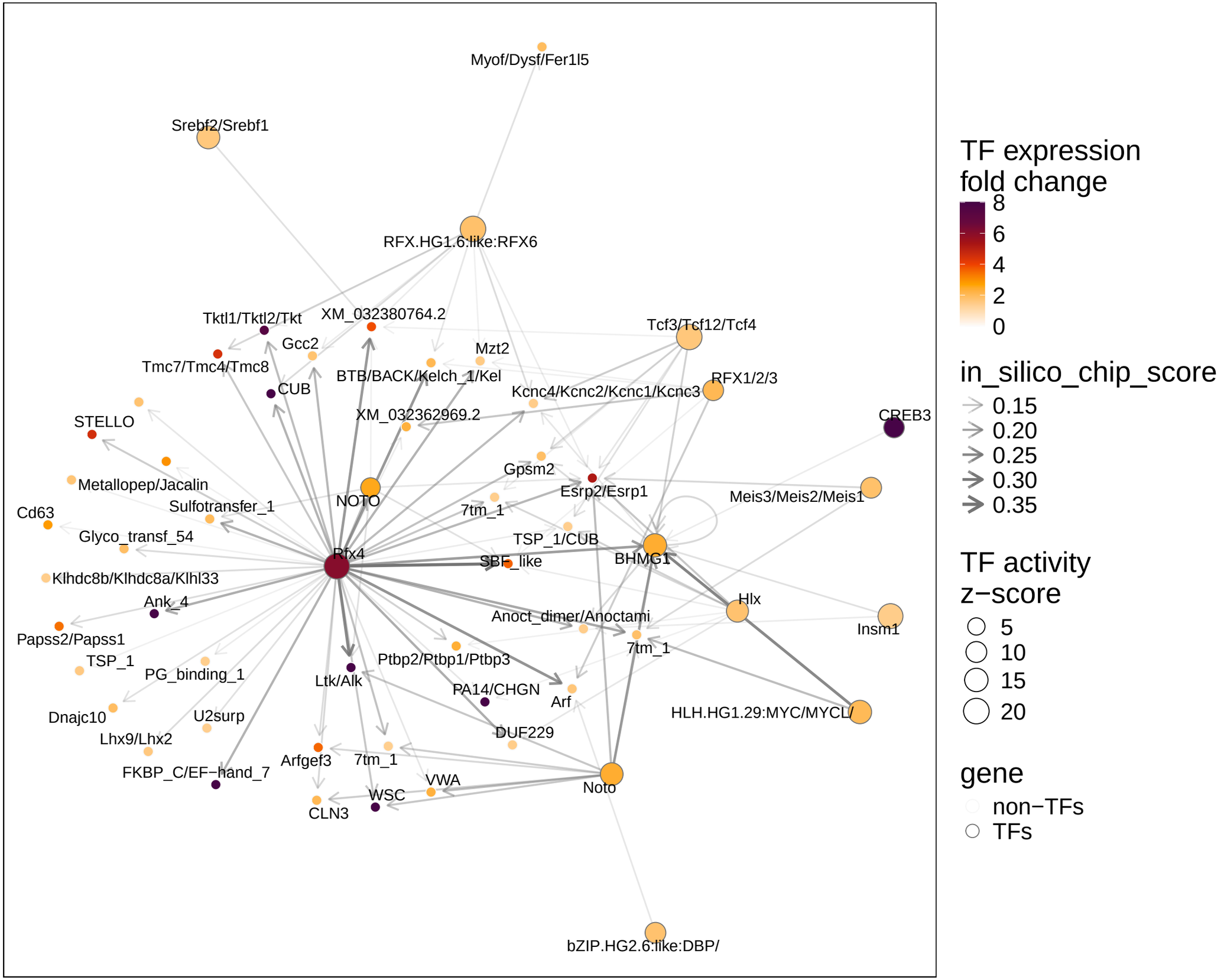

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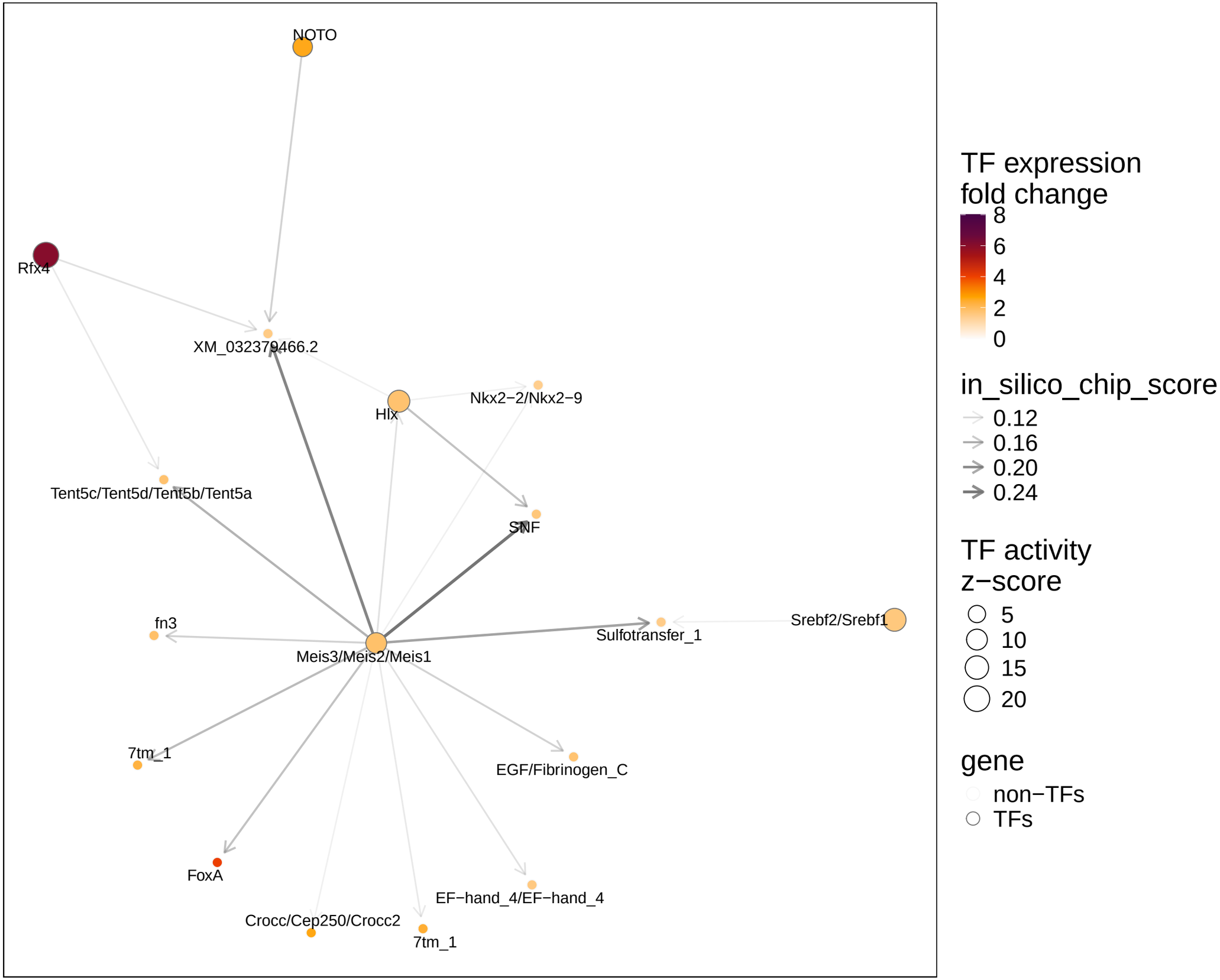

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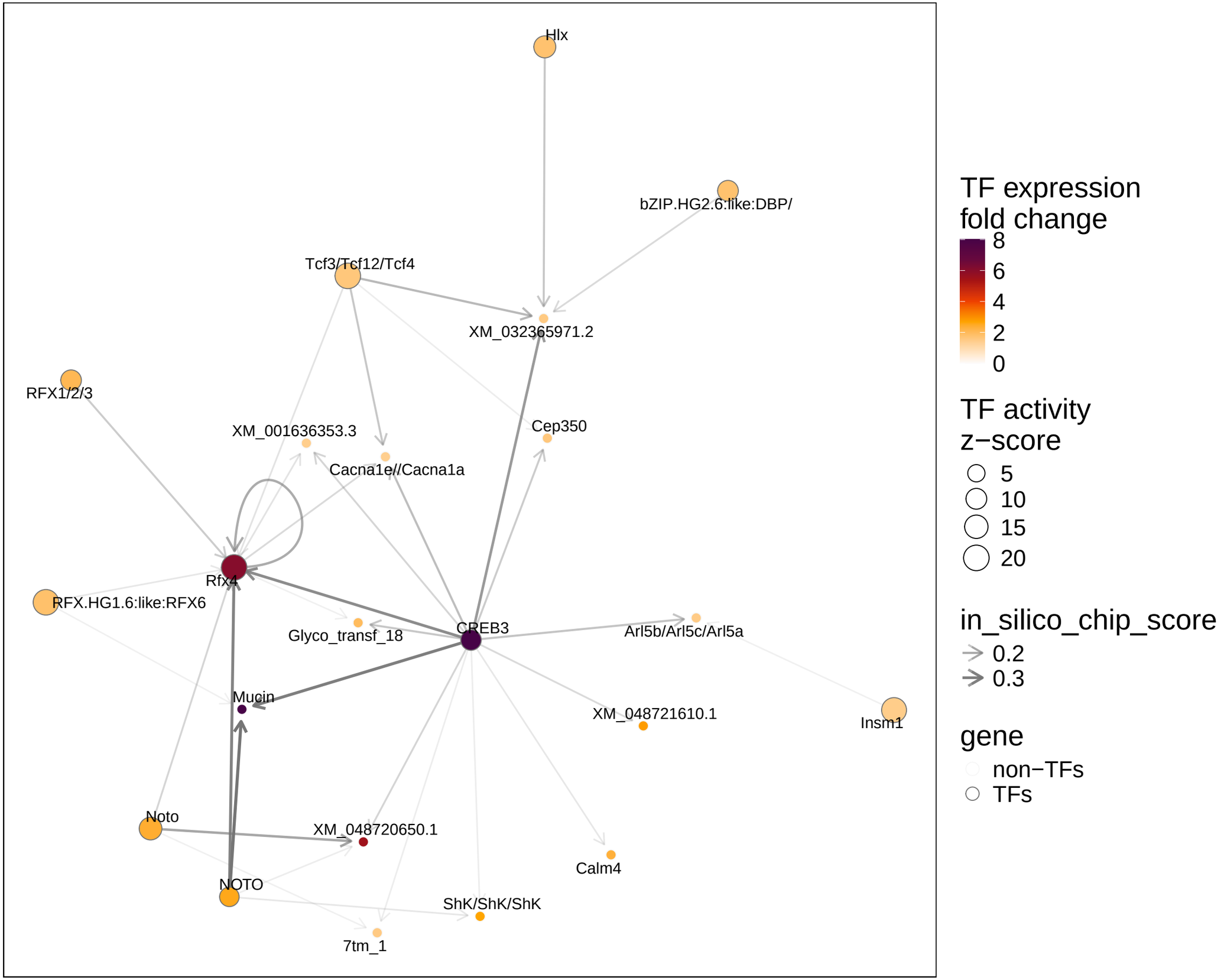

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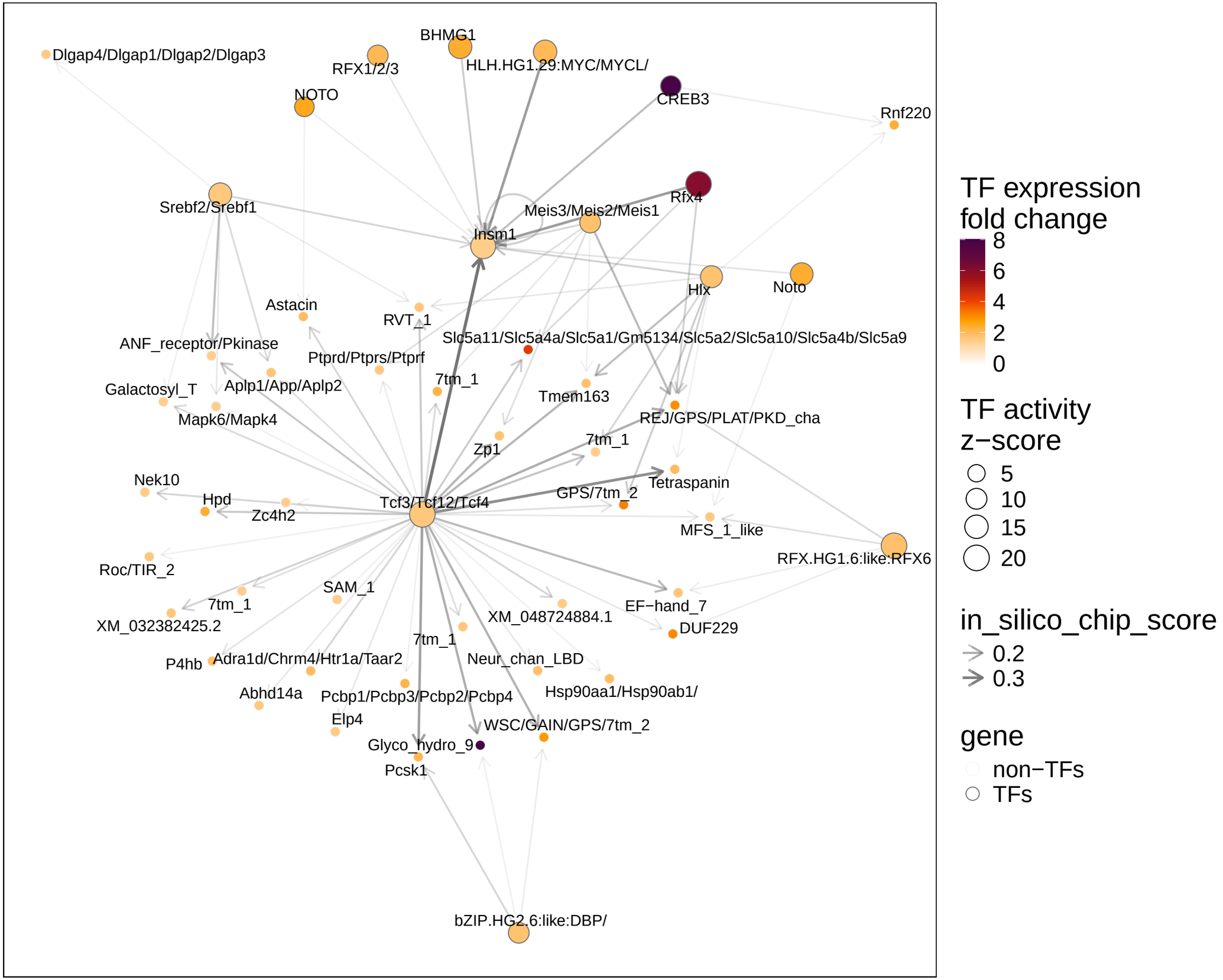

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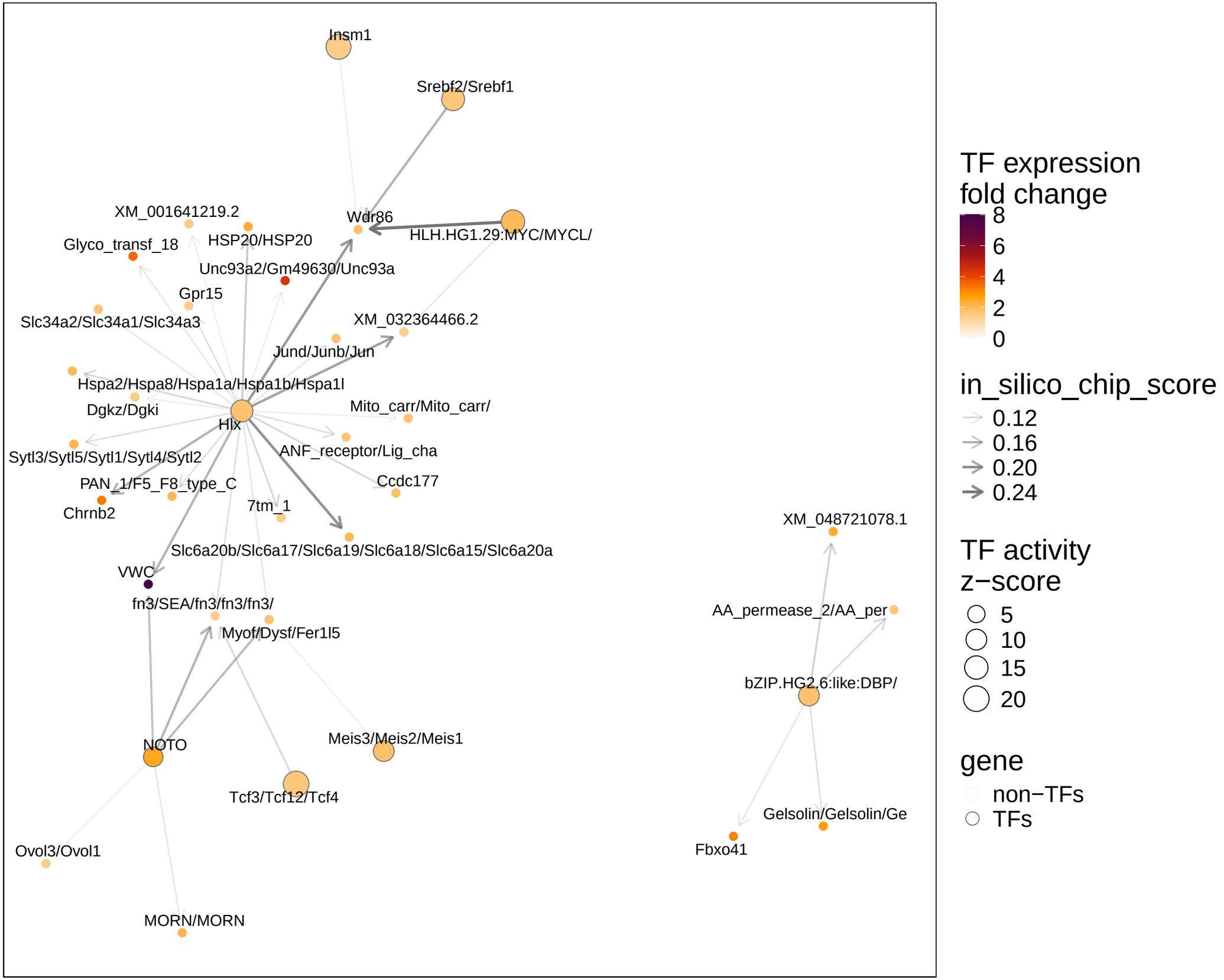

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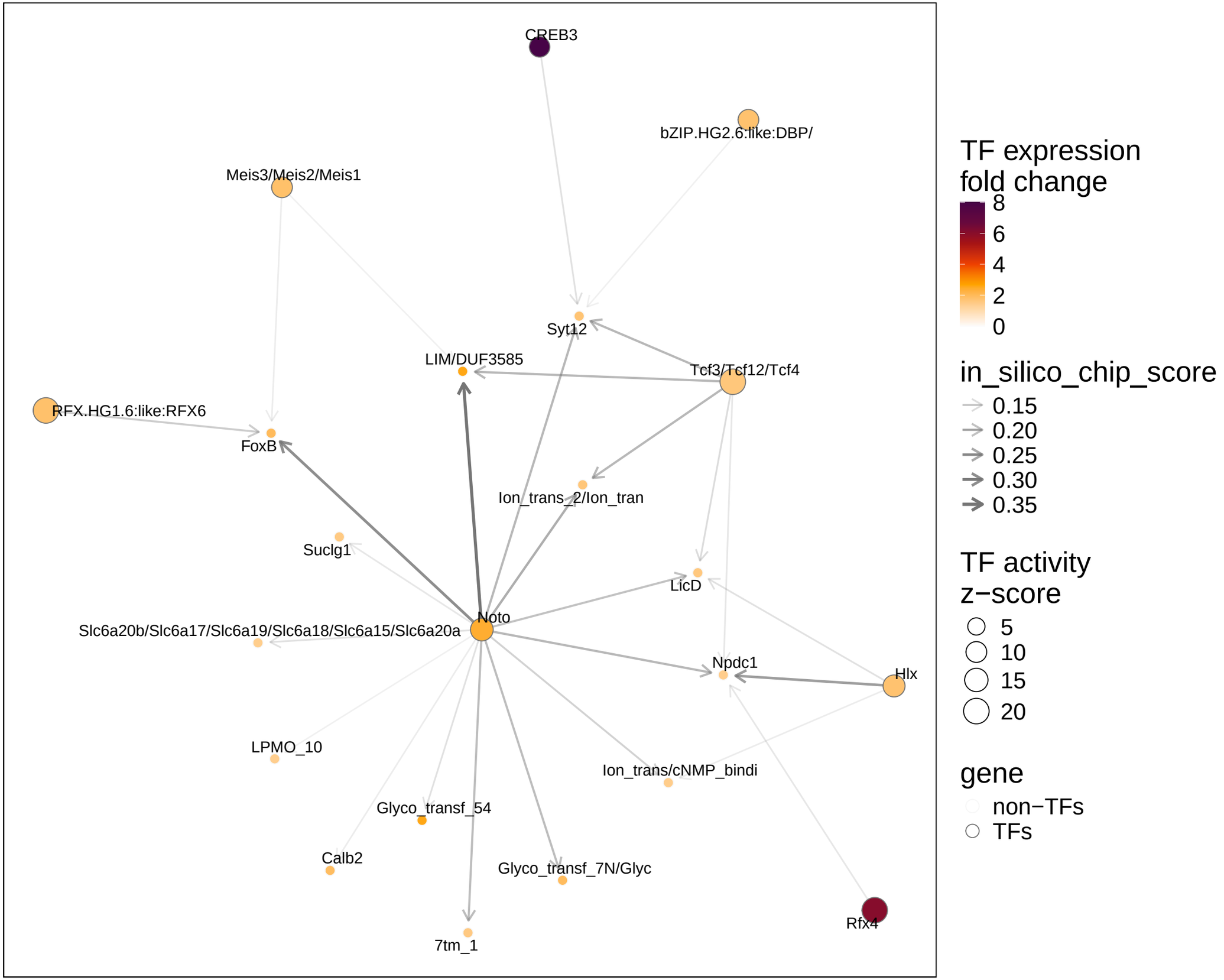

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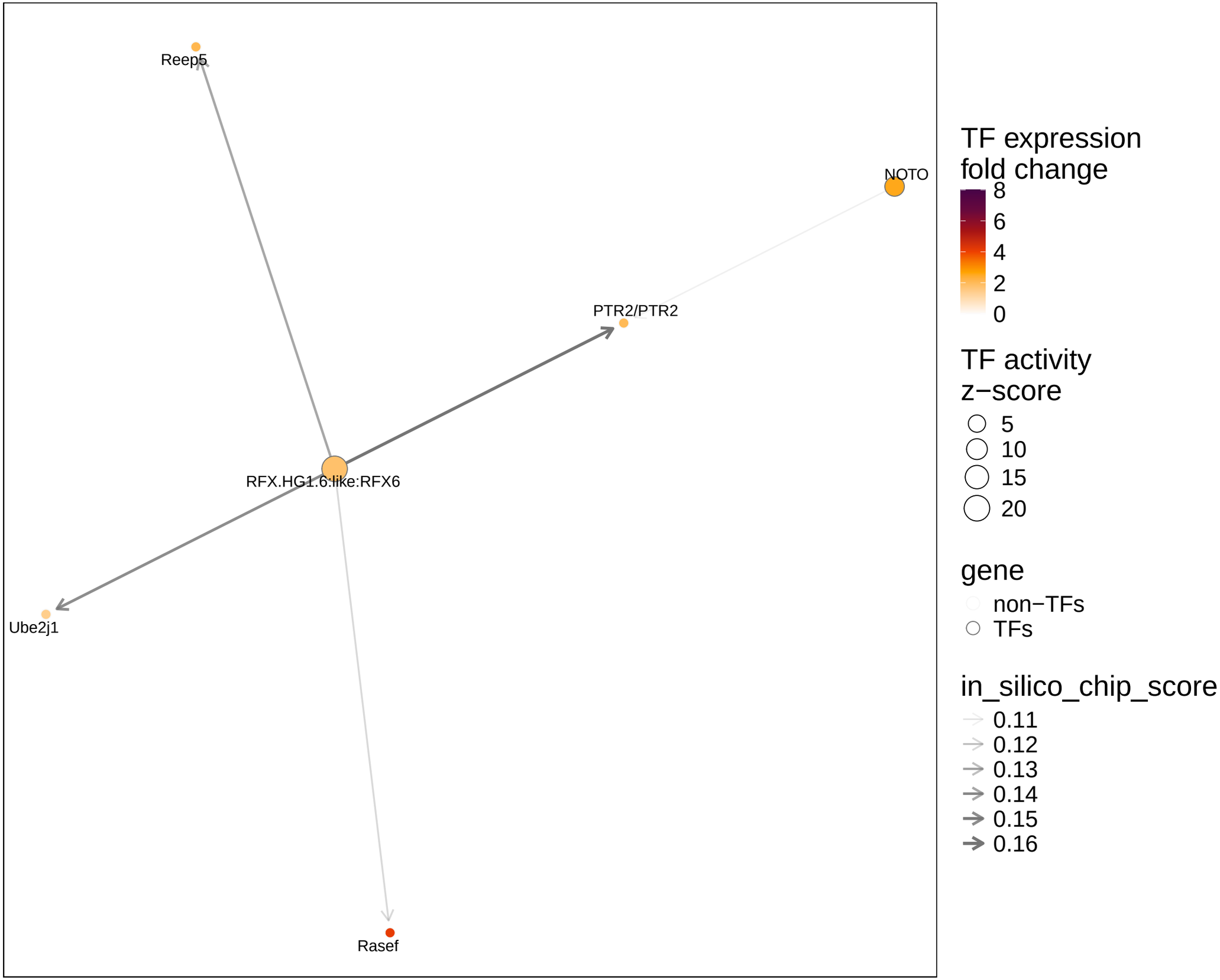
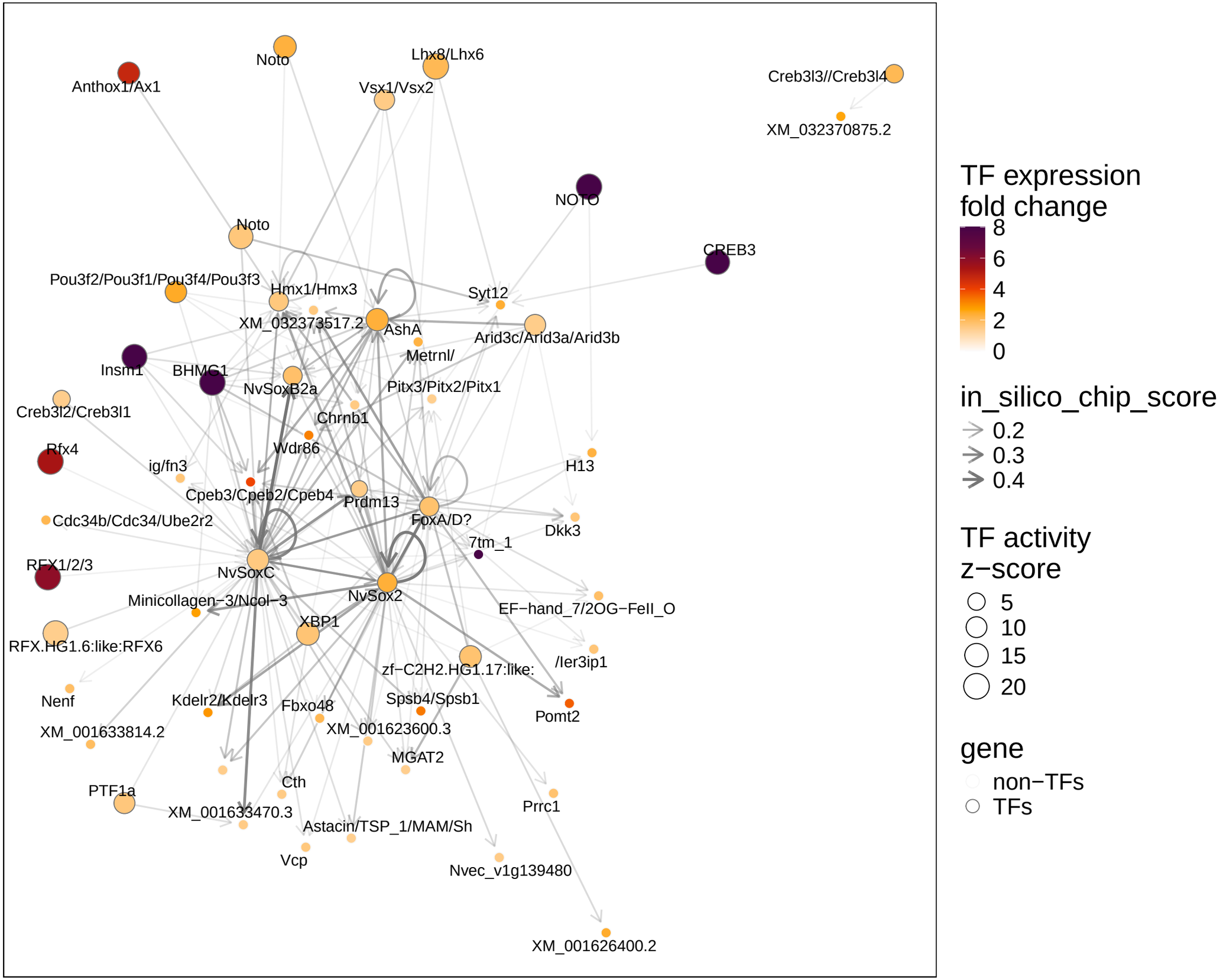


gland mucin module 1



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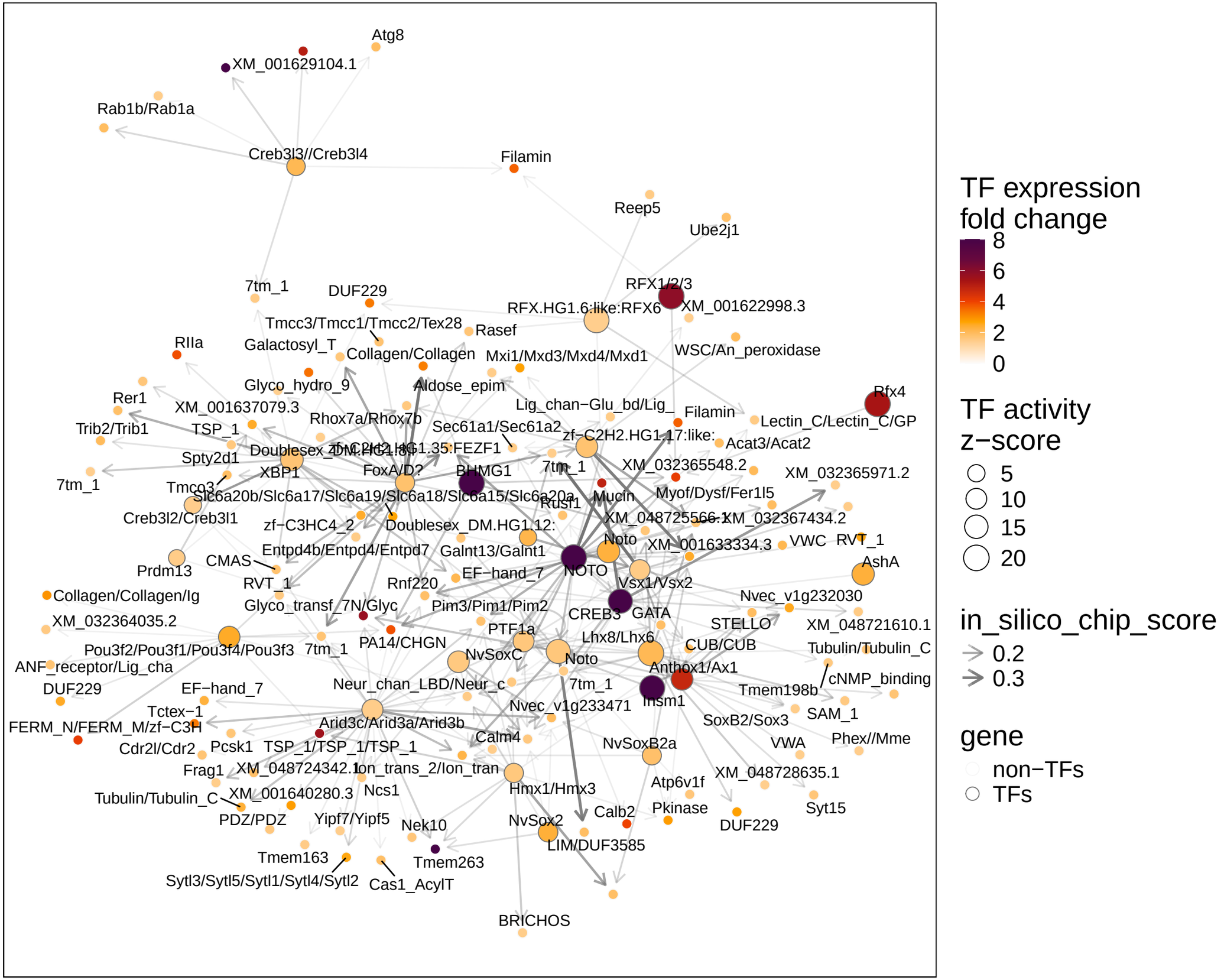

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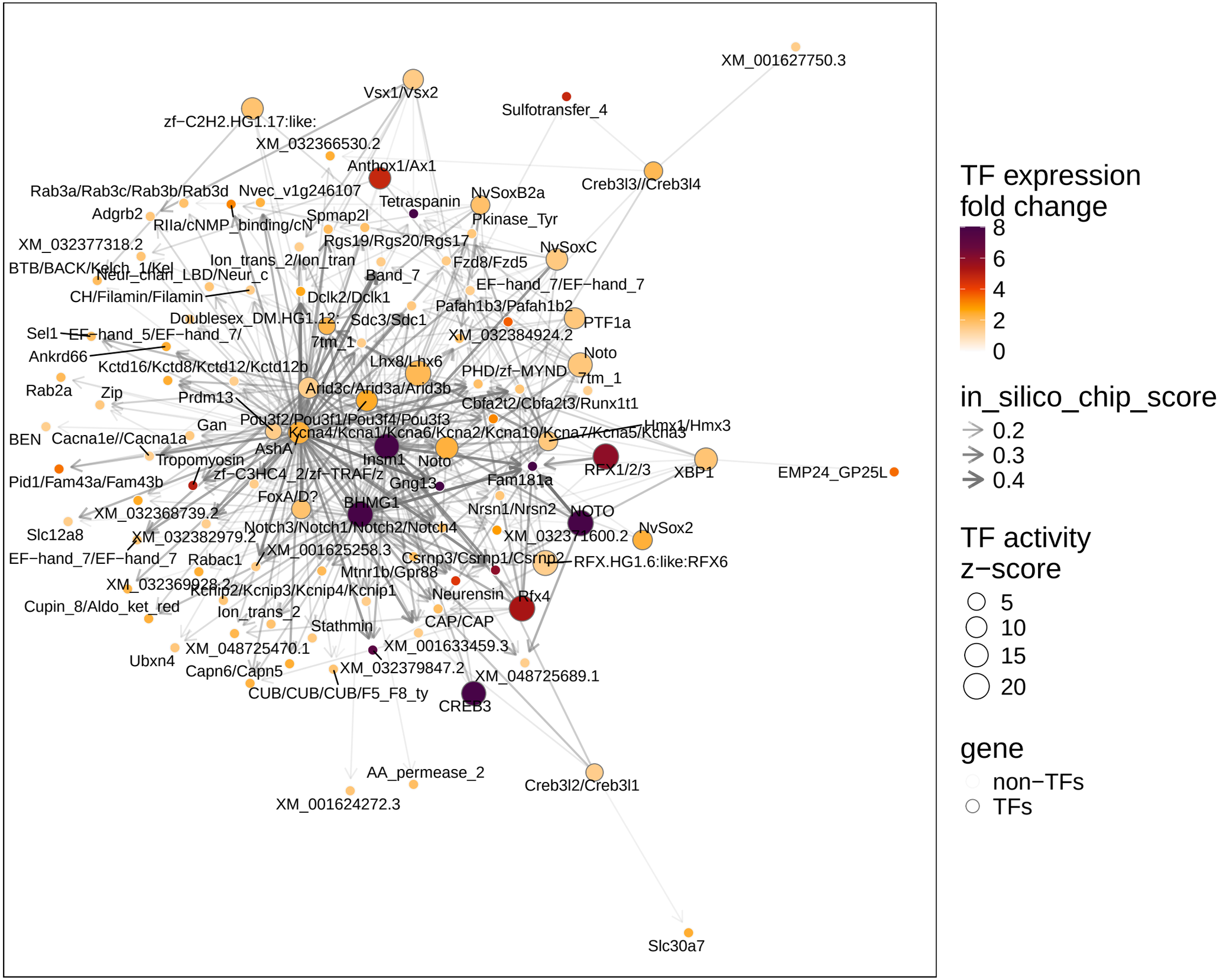
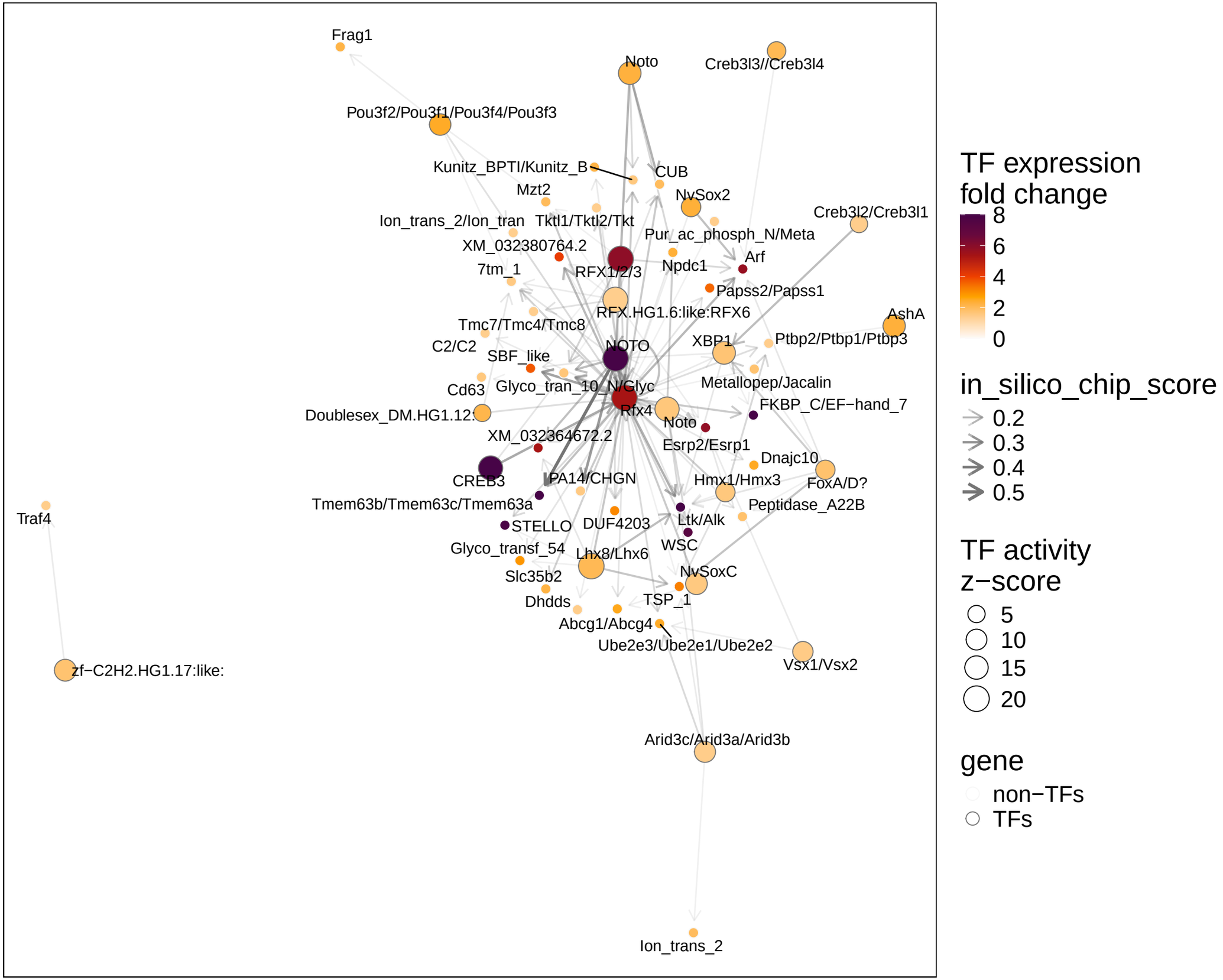
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