

Clustering the target scatter plots according to TFs' family and Pearson correlation coefficient

The bold text above plots indicates the family to which these TFs belong. Plots outlined by blue lines are selected to be the representative of family to constitute PBM_20. The TF name and Pearson correlation coefficient of binding intensities of paired TF are listed below plots.

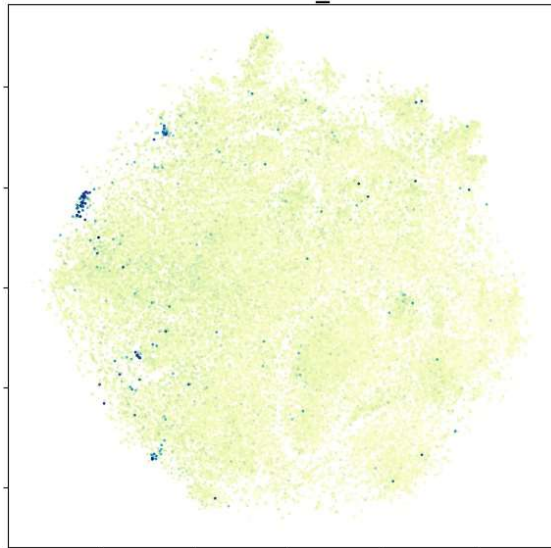
All 66 TFs from the PBM data set were grouped by their families in general. In particular, TFs in the family, C2H2 ZF, were further divided into subgroups according to the Pearson correlation coefficient. Some TFs in different families with high PCC also clustered in the same group. The general cutoff of Pearson correlation coefficient is 0.4. As we can see, plots of TFs in different TF families has different patterns. In general, PBM_20 is the subset of PBM_66 without homologs.

The indicator of plots is below:

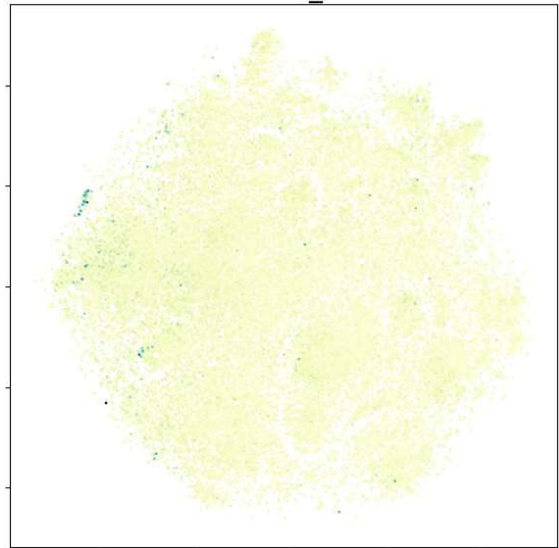


bZIP

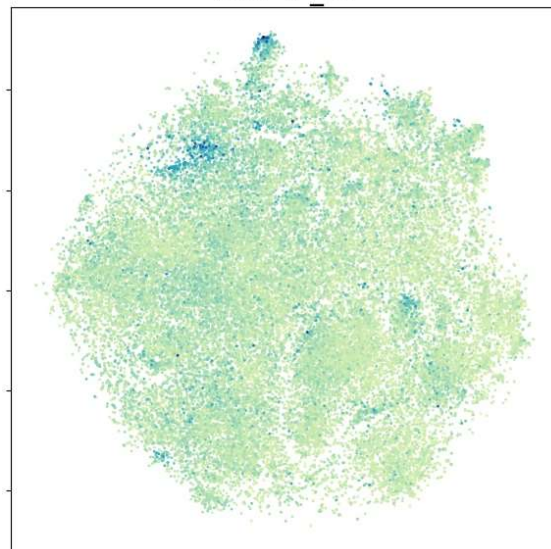
Test TF_2



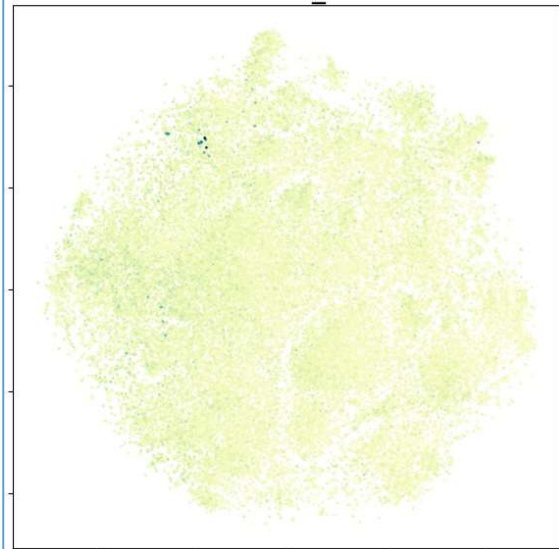
Test TF_10



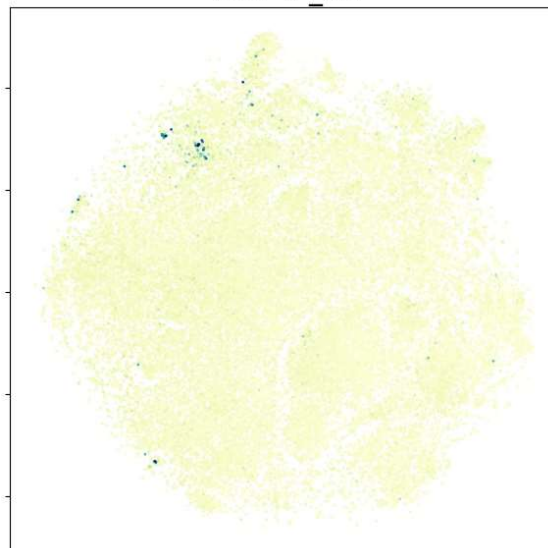
Test TF_27



Test TF_36



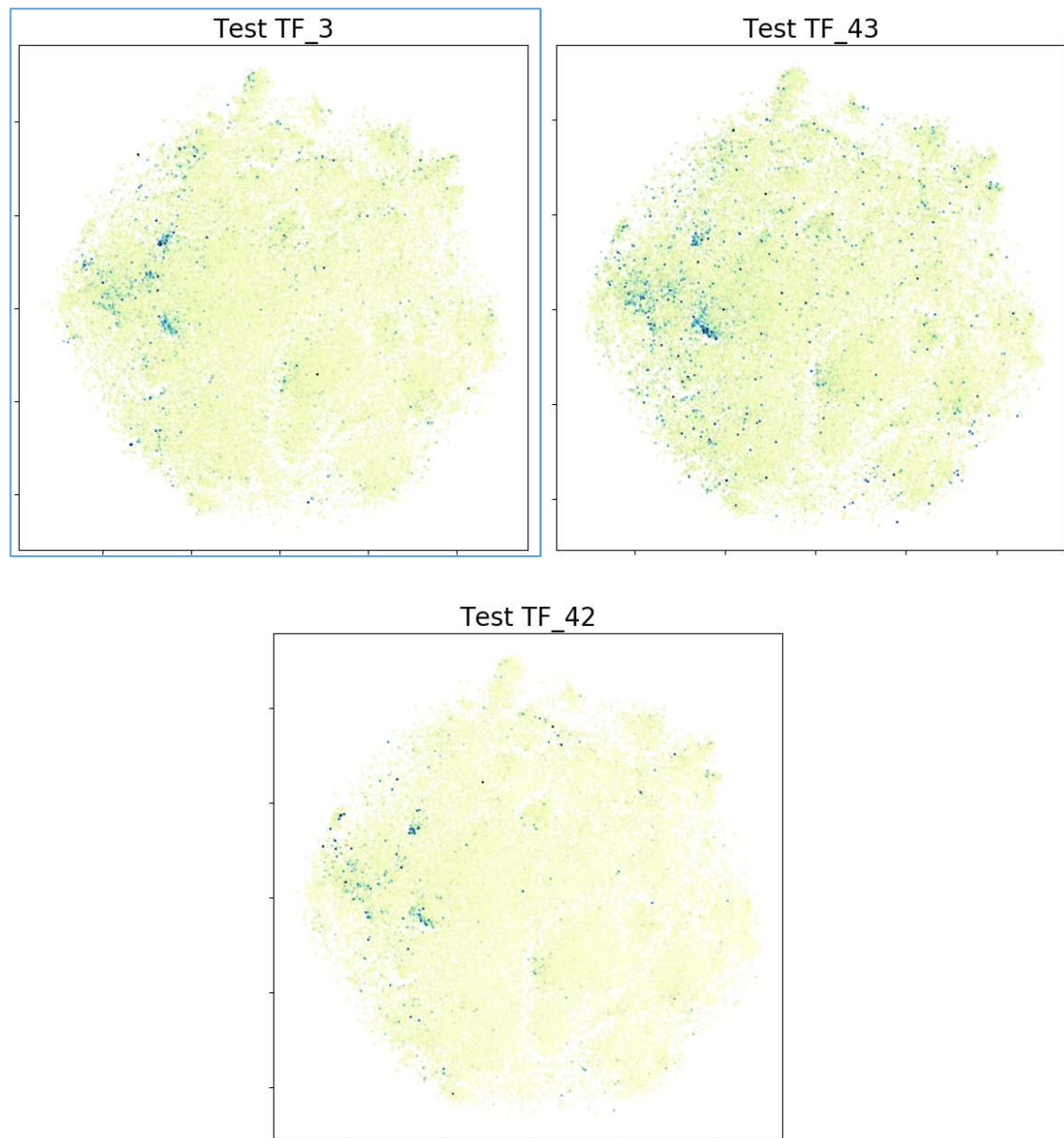
Test TF_35



TF_2: Dbp TF_10: Nfil3 TF_27: Xbp1 TF_35: Atf3 TF_36: Atf4

TF_2, TF_35: 0.420	TF_2, TF_36: 0.506	TF_2, TF_10: 0.685
TF_2, TF_27: 0.342	TF_35, TF_36: 0.636	TF_10, TF_35: 0.462
TF_27, TF_35: 0.519	TF_10, TF_36: 0.586	TF_27, TF_36: 0.497
TF_10, TF_27: 0.339		

Forkhead



TF_3: Foxo6

TF_42: Foxc2

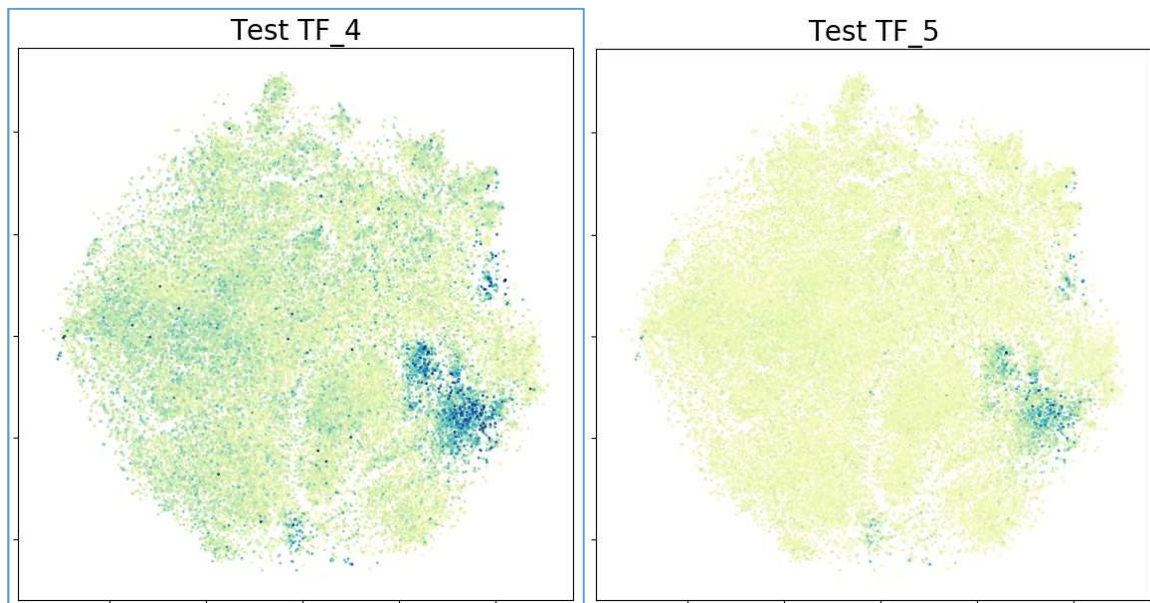
TF_43: Foxg1

TF_3, TF_42: 0.720

TF_3, TF_43: 0.784

TF_42, TF_43: 0.727

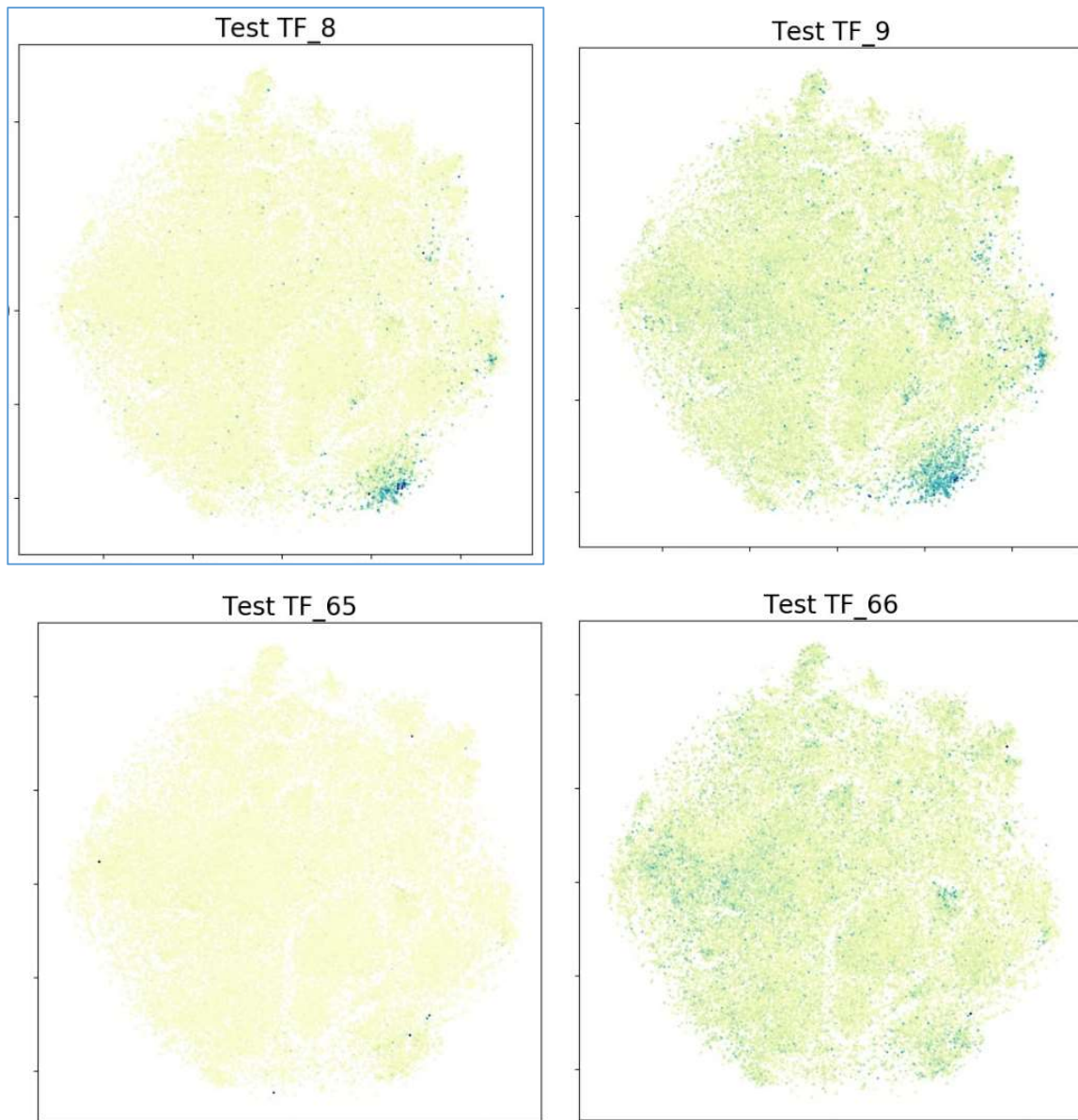
C2H2 ZF



TF_4: Klf12 TF_5: Klf8

TF_4, TF_5: 0.707

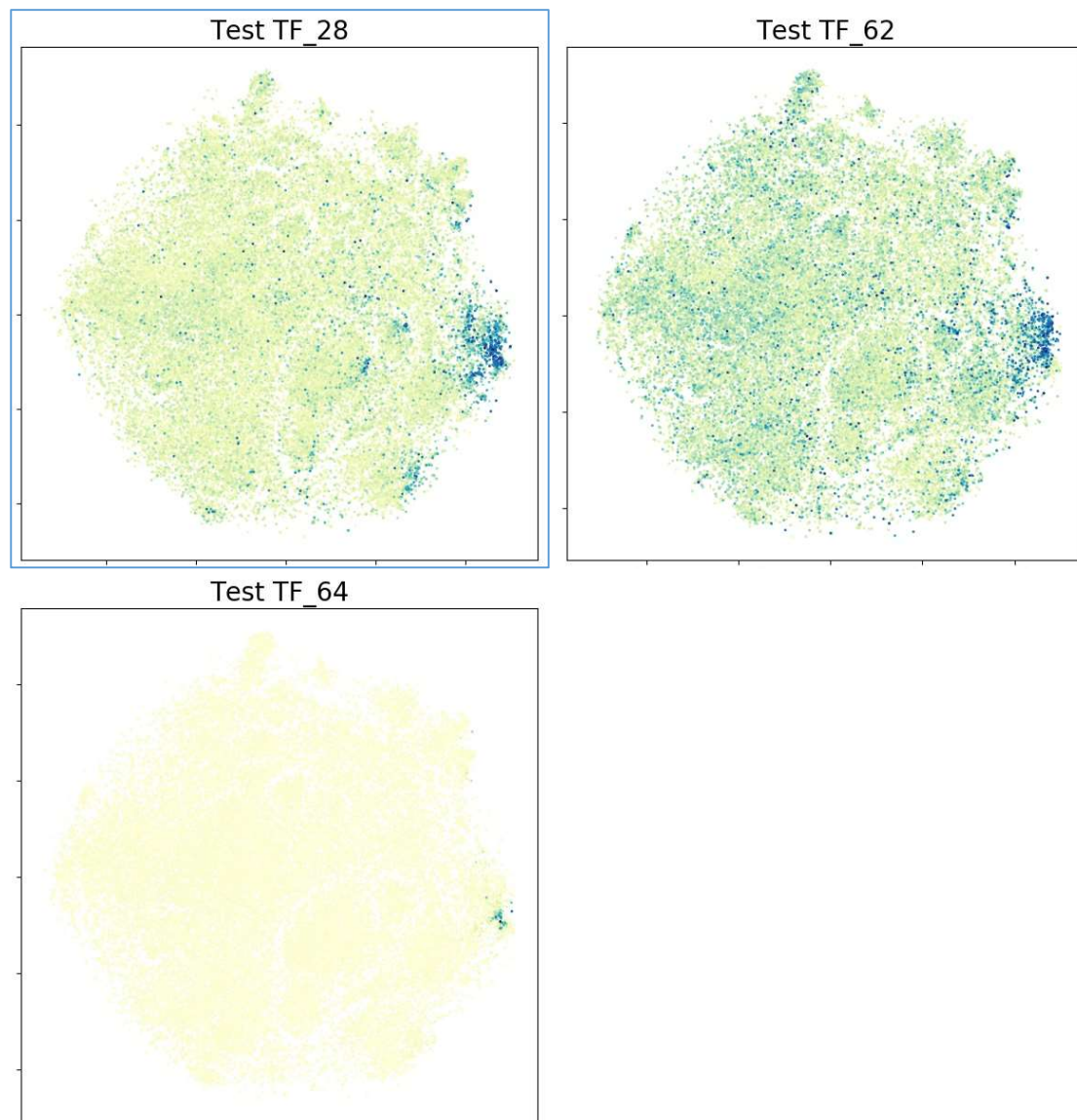
C2H2 ZF



TF_8: Mzf1 TF_9: Mzf1 TF_65: Zscan10 TF_66: Zscan10

TF_8, TF_9: 0.728	TF_8, TF_65: 0.430	TF_8, TF_66: 0.480
TF_9, TF_65: 0.563	TF_9, TF_66: 0.692	TF_65, TF_66: 0.734

C2H2 ZF



TF_28: Zfp202

TF_62: Zic5

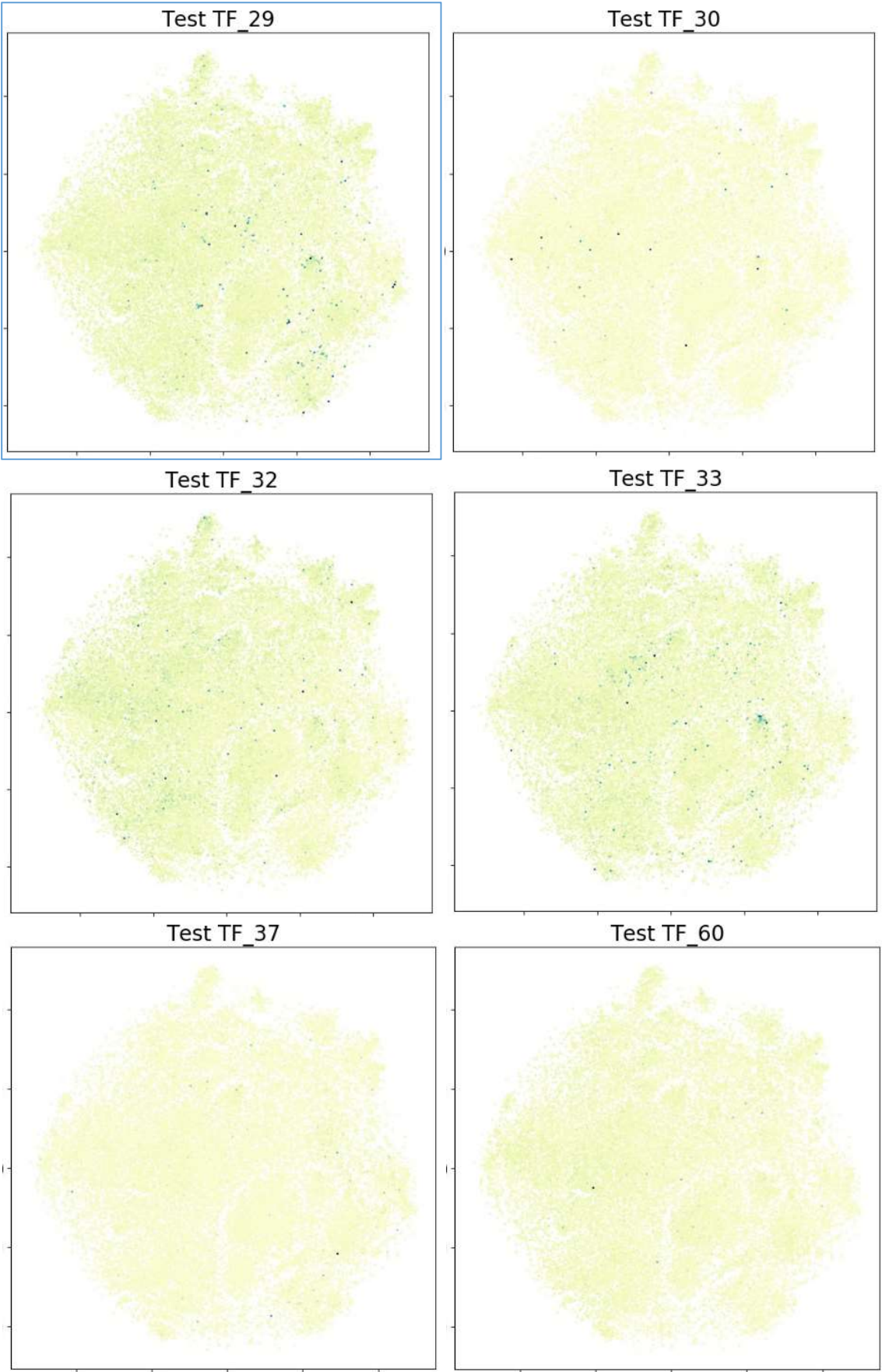
TF_64: Znf740

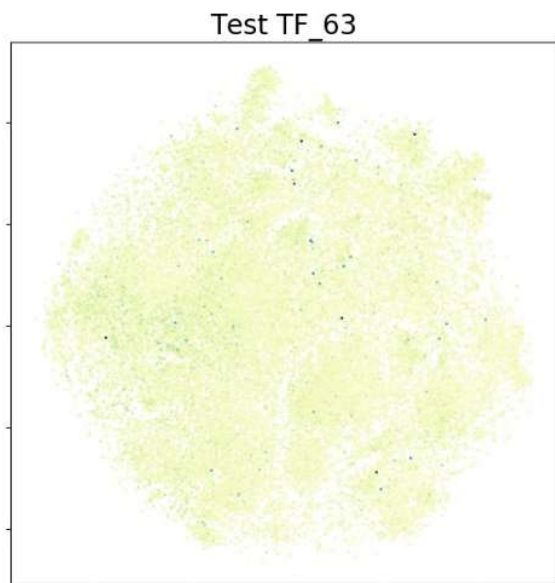
TF_28, TF_62: 0.331

TF_28, TF_64: 0.512

TF_62, TF_64: 0.249

C2H2 ZF

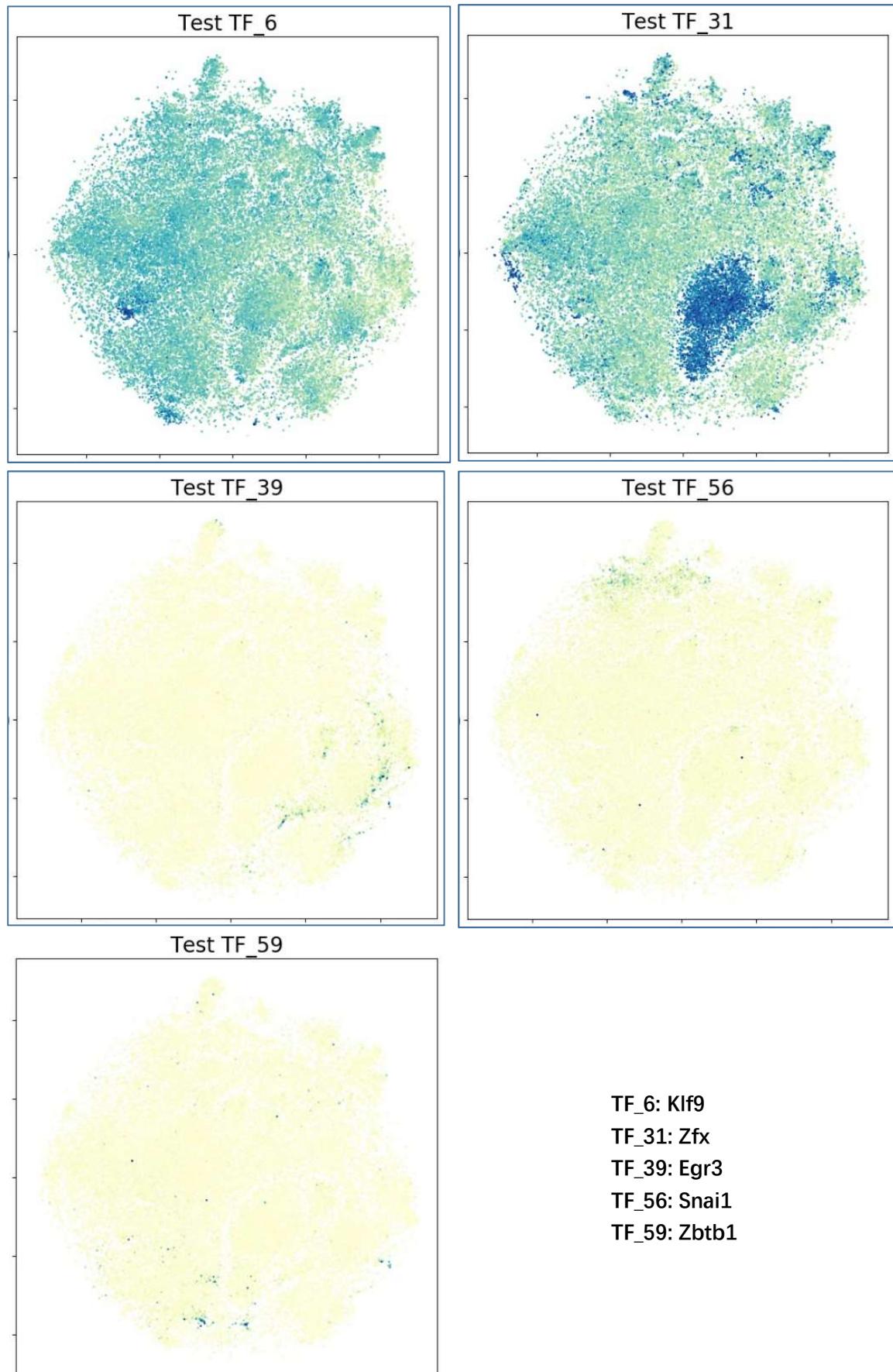




TF_29 Zfp263	TF_30 Zfp3	TF_32 Zkscan1	TF_33 Zscan10
TF_37 chr15-10391820-10399583		TF_60 Zfp300	TF_63 Zkscan5

TF_33, TF_37: 0.273	TF_33, TF_60: 0.566	TF_29, TF_33: 0.343
TF_30, TF_33: 0.467	TF_33, TF_63: 0.559	TF_32, TF_33: 0.465
TF_37, TF_60: 0.248	TF_29, TF_37: 0.170	TF_30, TF_37: 0.205
TF_37, TF_63: 0.278	TF_32, TF_37: 0.152	TF_29, TF_60: 0.283
TF_30, TF_60: 0.444	TF_60, TF_63: 0.634	TF_32, TF_60: 0.514
TF_29, TF_30: 0.222	TF_29, TF_63: 0.304	TF_29, TF_32: 0.240
TF_30, TF_63: 0.407	TF_30, TF_32: 0.371	TF_32, TF_63: 0.514

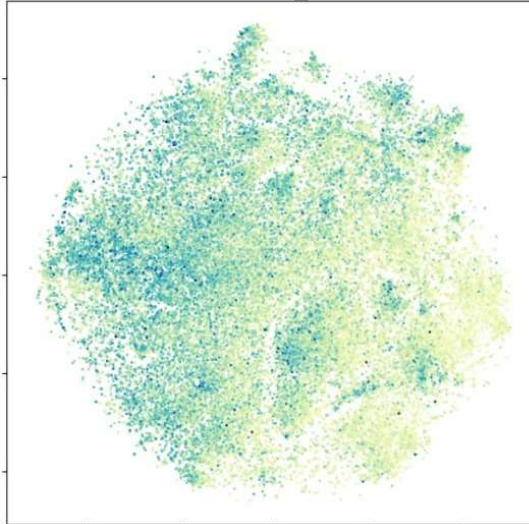
C2H2 ZF (low similarity with others)



Similar but in different families

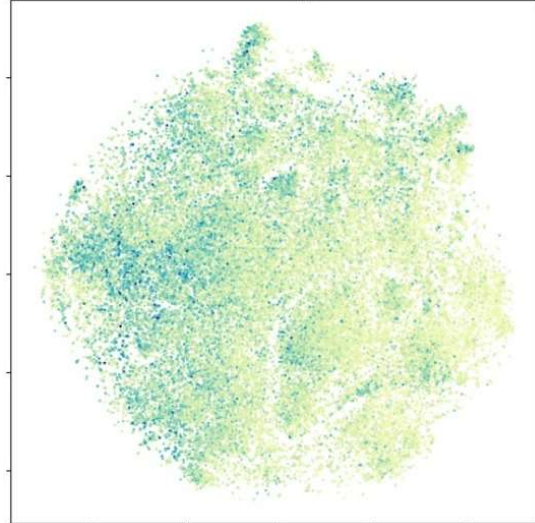
C2H2 ZF

Test TF_61



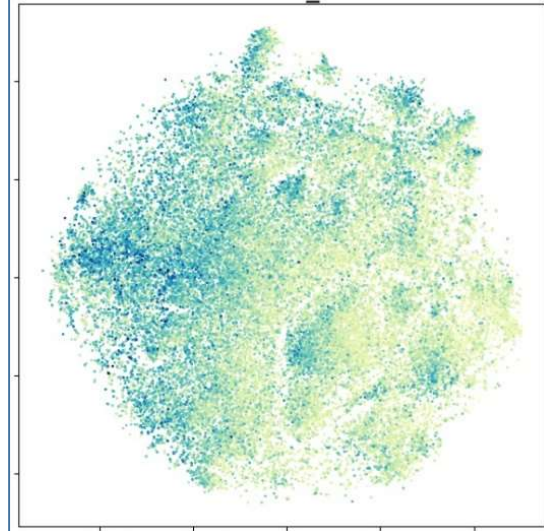
SAND

Test TF_57



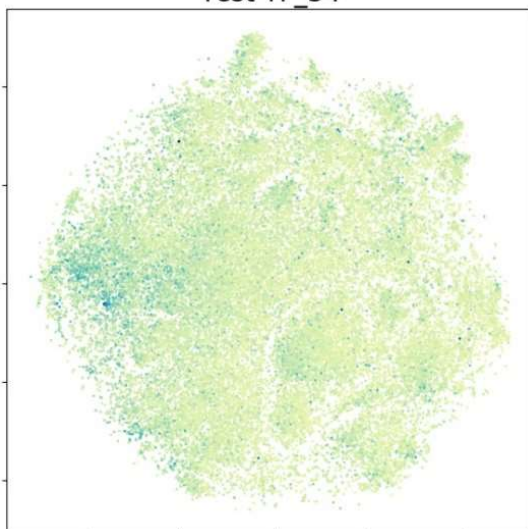
DM

Test TF_38

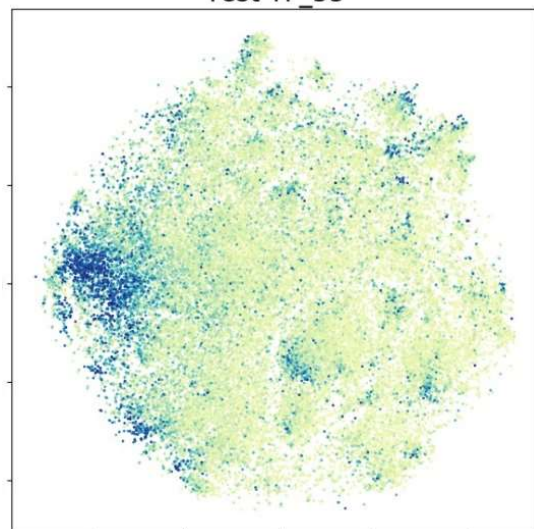


AT hook

Test TF_34



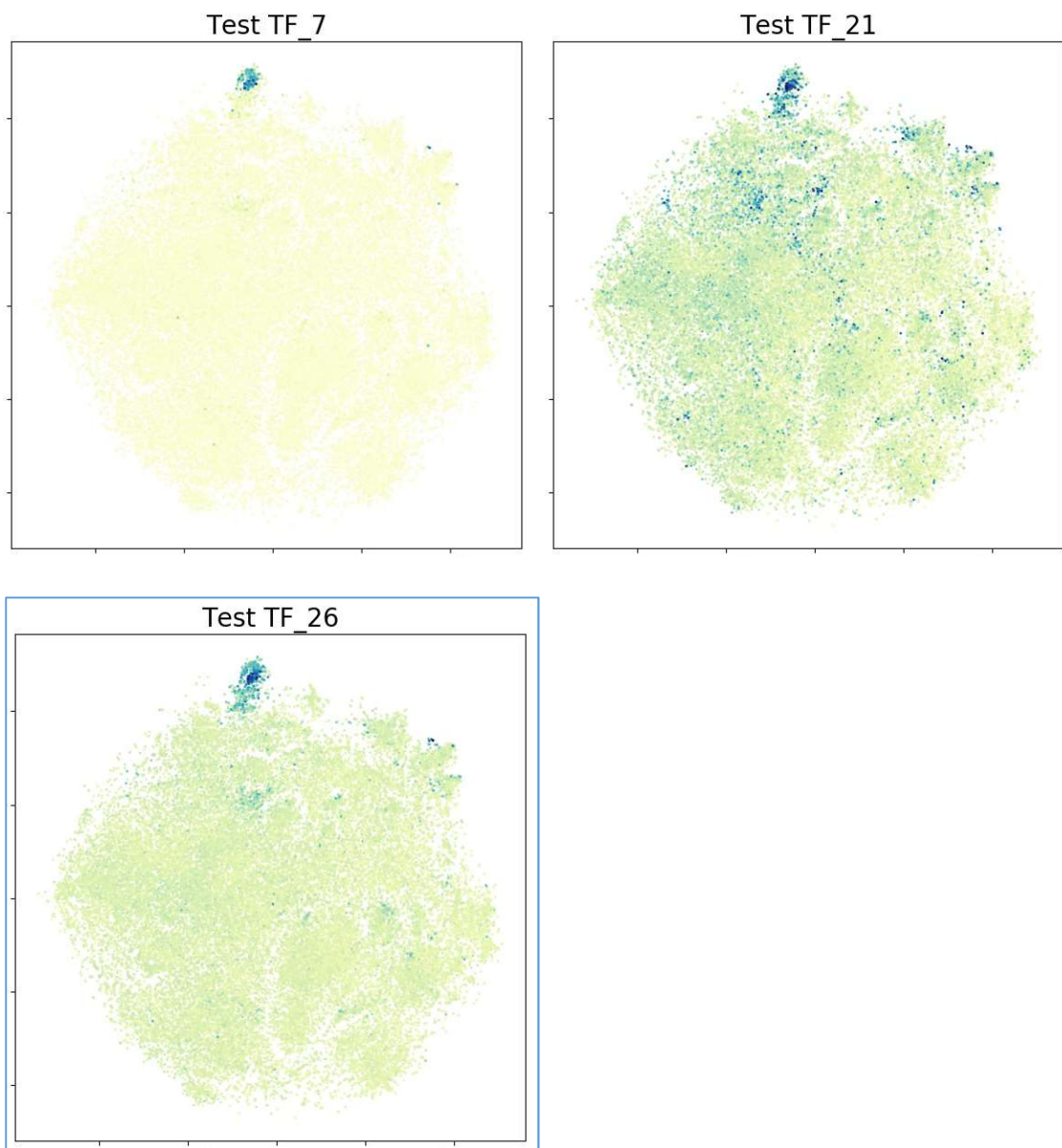
Test TF_55



TF_38: Dmrtc2 TF_57: Sp140 TF_61: Zfp637
TF_34: Ahctf1 TF_55: Sdccag8

TF_34, TF_38: 0.626	TF_34, TF_55: 0.667	TF_34, TF_57: 0.514
TF_34, TF_61: 0.488	TF_38, TF_55: 0.507	TF_38, TF_57: 0.644
TF_38, TF_61: 0.644	TF_55, TF_57: 0.502	TF_55, TF_61: 0.456
TF_57, TF_61: 0.688		

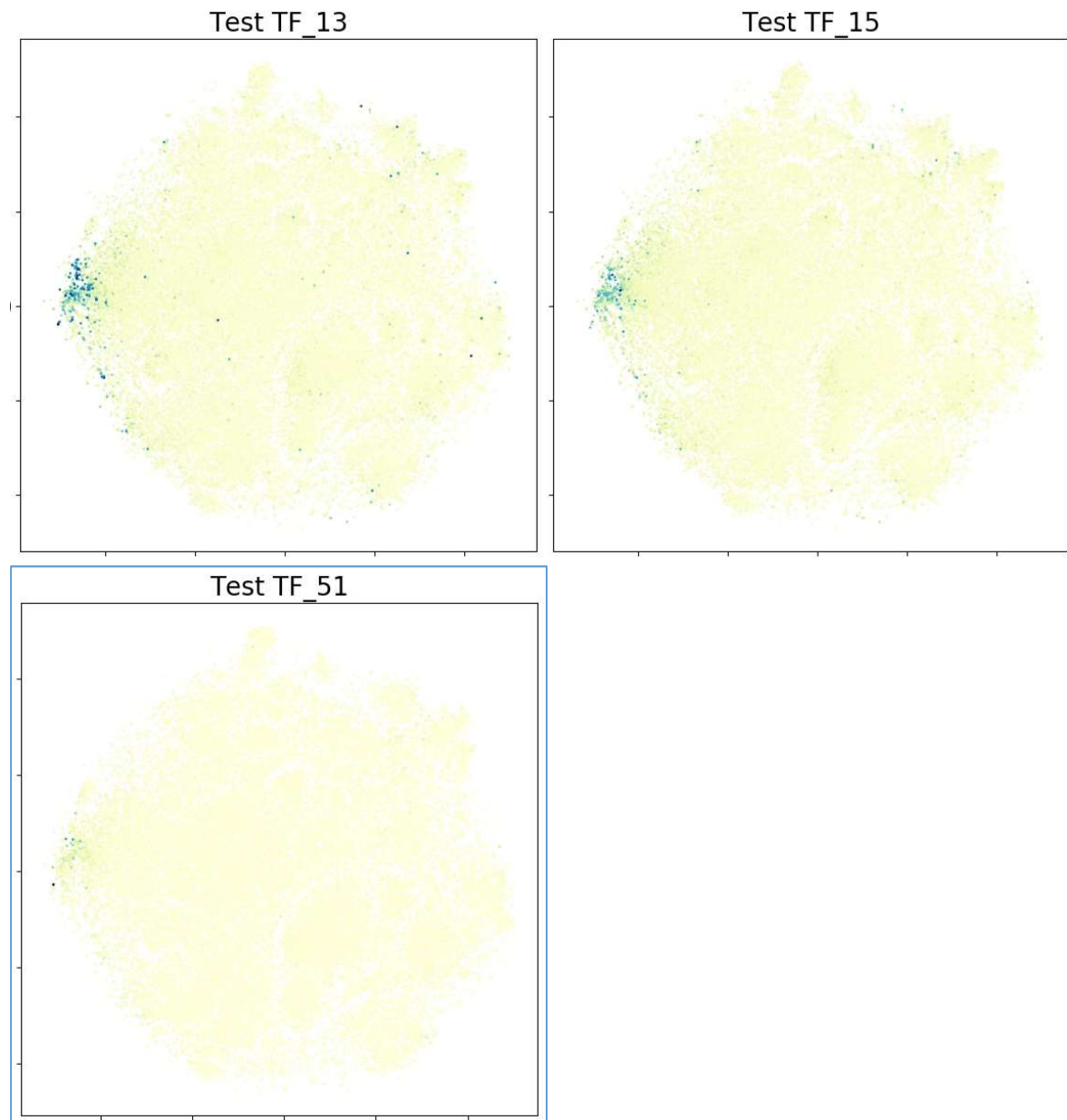
bHLH



TF_7: Mlx TF_21: Srebf1 TF_26: Tfec

TF_7, TF_21: 0.370 TF_7, TF_26: 0.699 TF_21, TF_26: 0.500

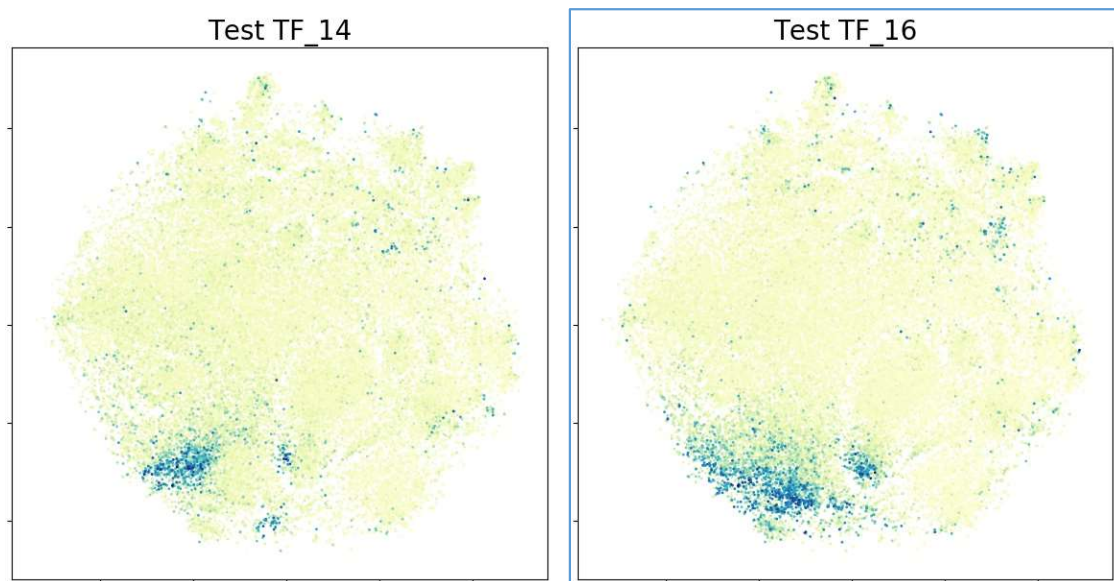
POU



TF_13: Oct-1 TF_15: Pit1 TF_51: Pou1f1

TF_13, TF_15: 0.811 TF_13, TF_51: 0.778 TF_15, TF_51: 0.853

Myb/SANT

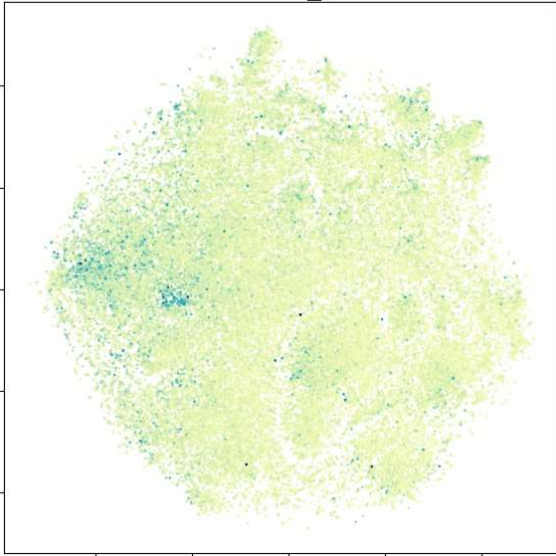


TF_14: P42pop TF_16: Prdm11

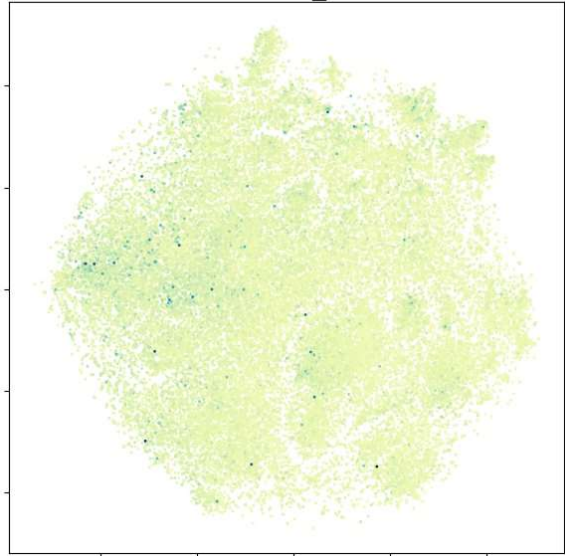
TF_14, TF_16: 0.414

Sox

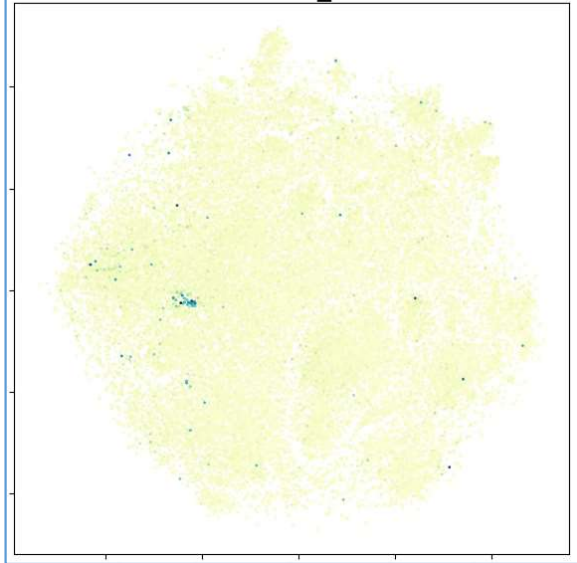
Test TF_18



Test TF_19



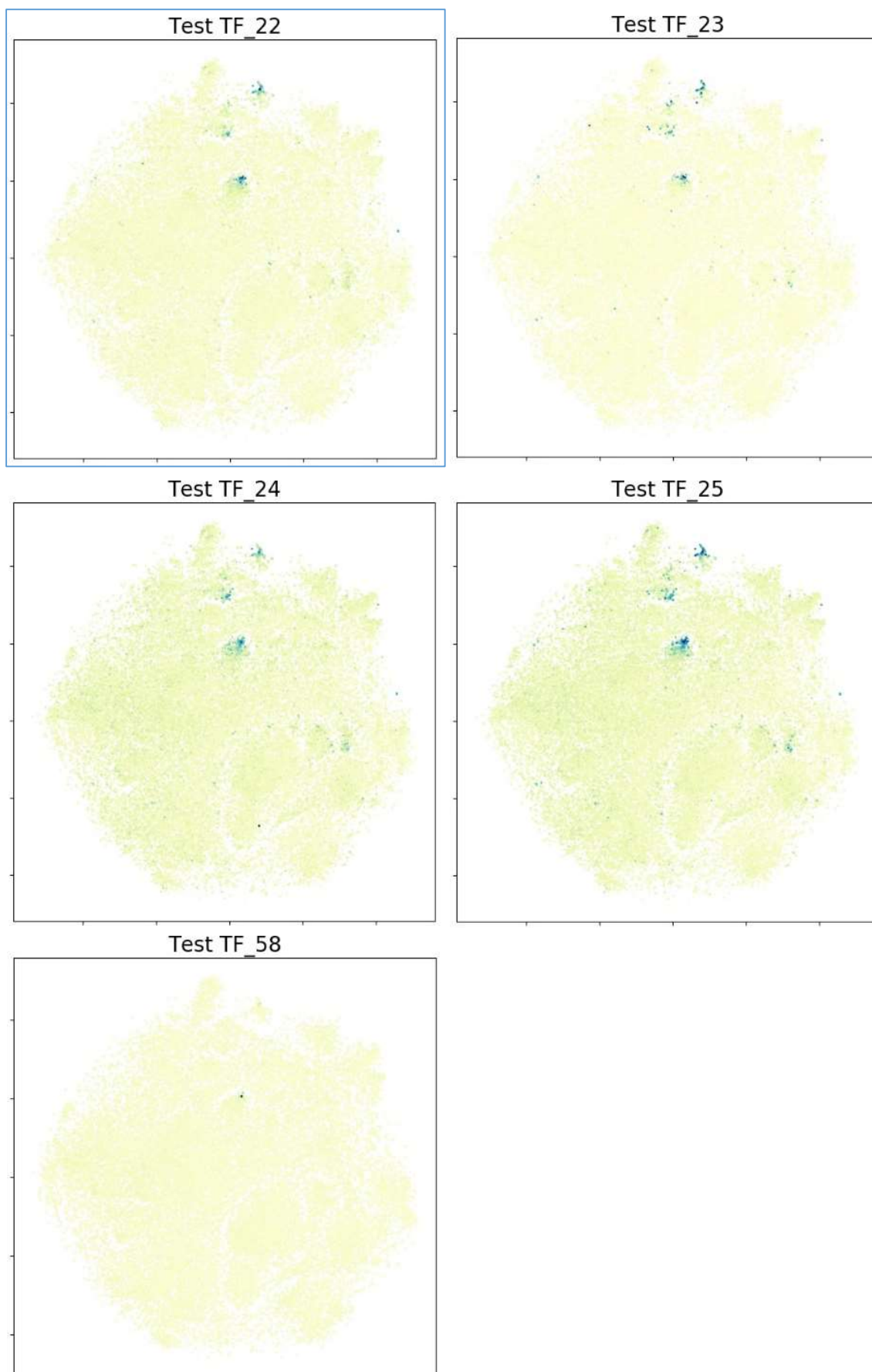
Test TF_20



TF_18: Sox10 TF_19: Sox3 TF_20: Sox6

TF_18, TF_19: 0.747 TF_18, TF_20: 0.639 TF_19, TF_20: 0.541

T-box

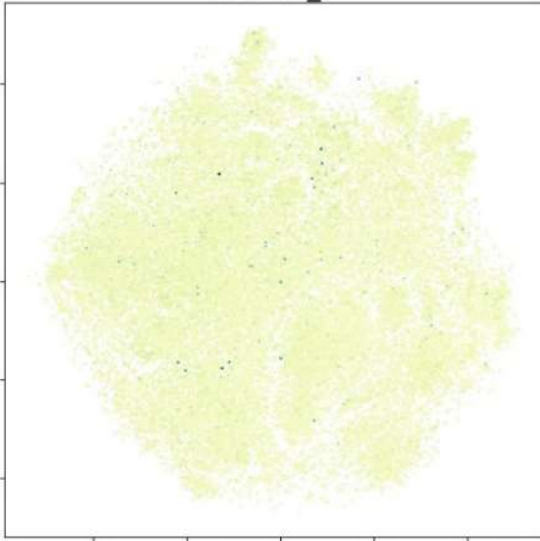


TF_22: Tbx2	TF_23: Tbx20	TF_24: Tbx4	TF_25: Tbx5	TF_58: Tbx1
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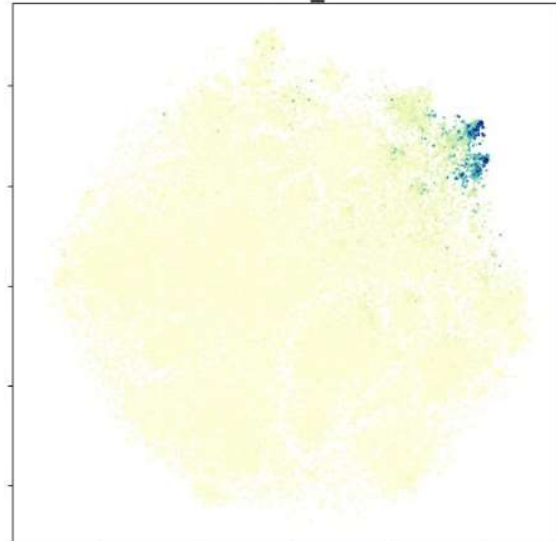
TF_22, TF_23: 0.692	TF_22, TF_24: 0.788	TF_22, TF_25: 0.800
TF_22, TF_58: 0.499	TF_23, TF_24: 0.597	TF_23, TF_25: 0.626
TF_23, TF_58: 0.366	TF_24, TF_25: 0.913	TF_24, TF_58: 0.481
TF_25, TF_58: 0.421		

Nuclear receptor

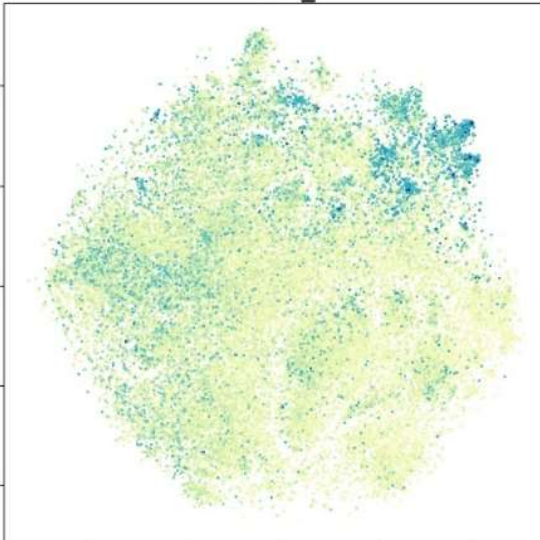
Test TF_1



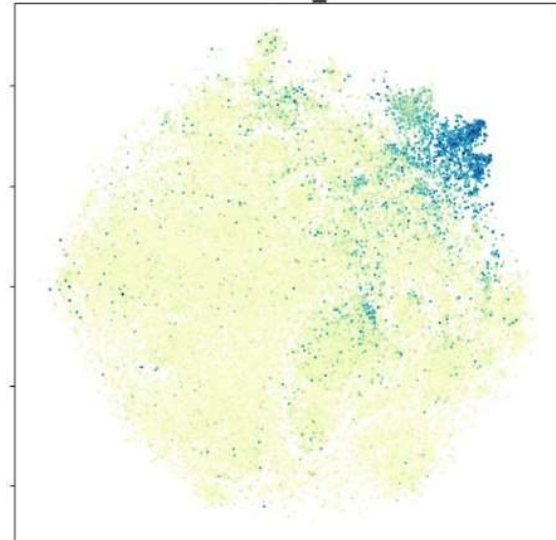
Test TF_11



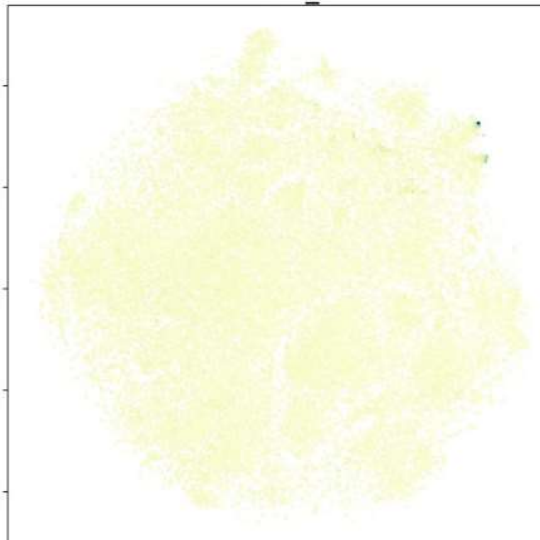
Test TF_12



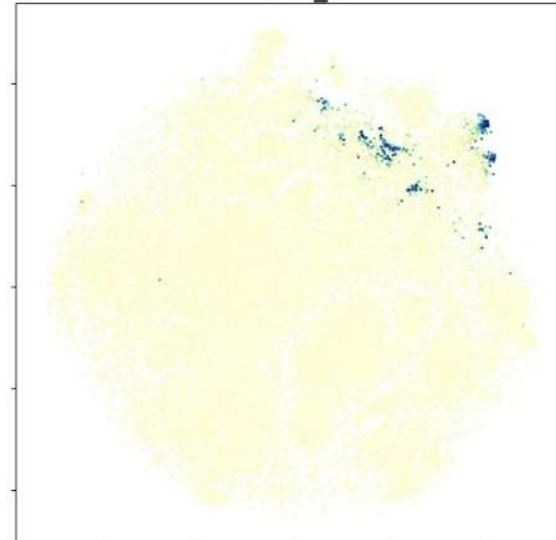
Test TF_17



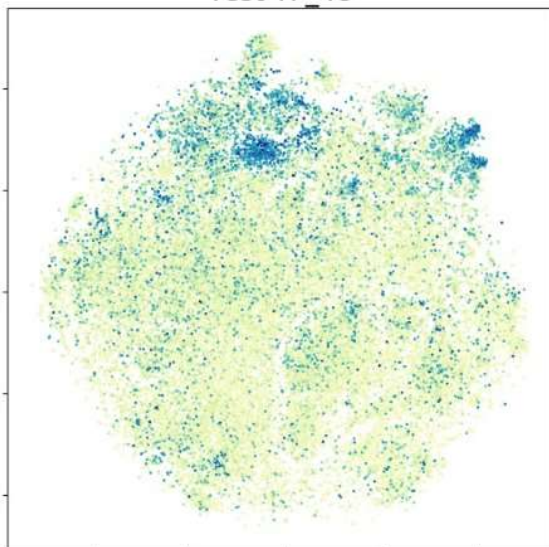
Test TF_40



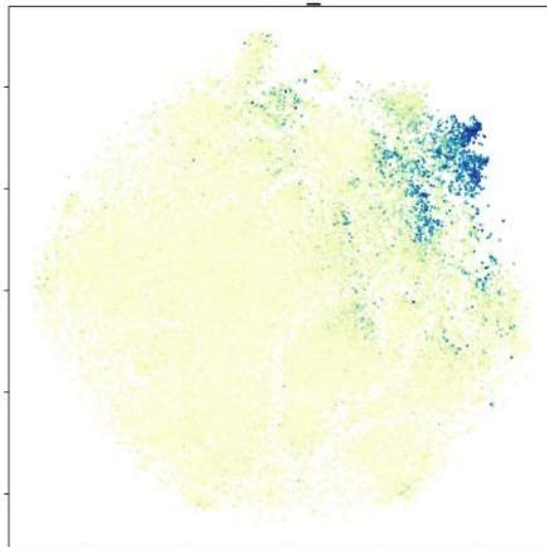
Test TF_41



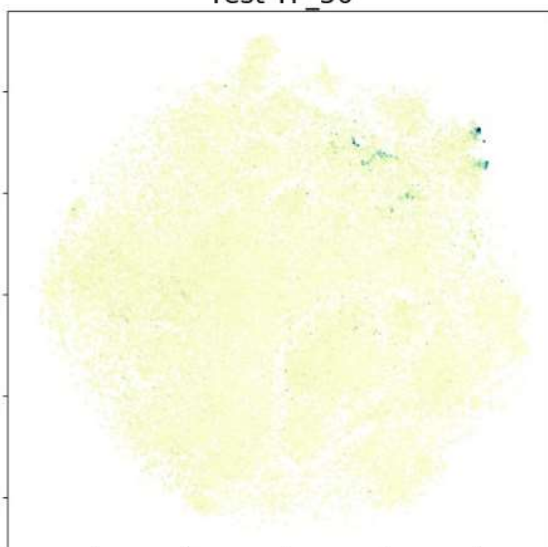
Test TF_48



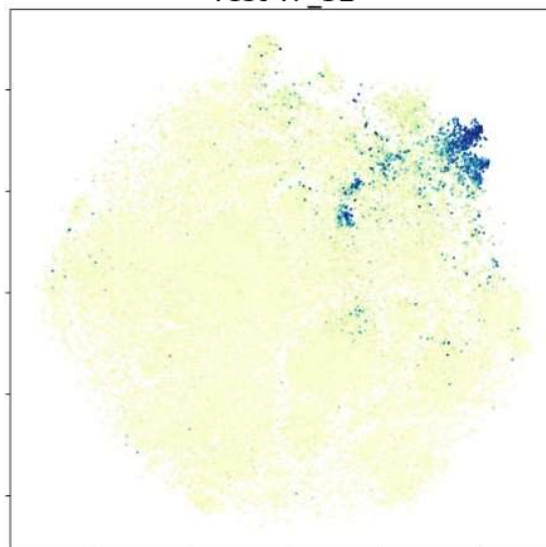
Test TF_49



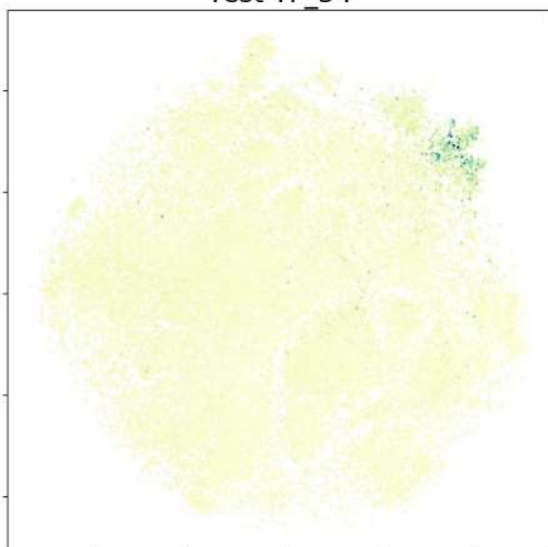
Test TF_50



Test TF_52



Test TF_54



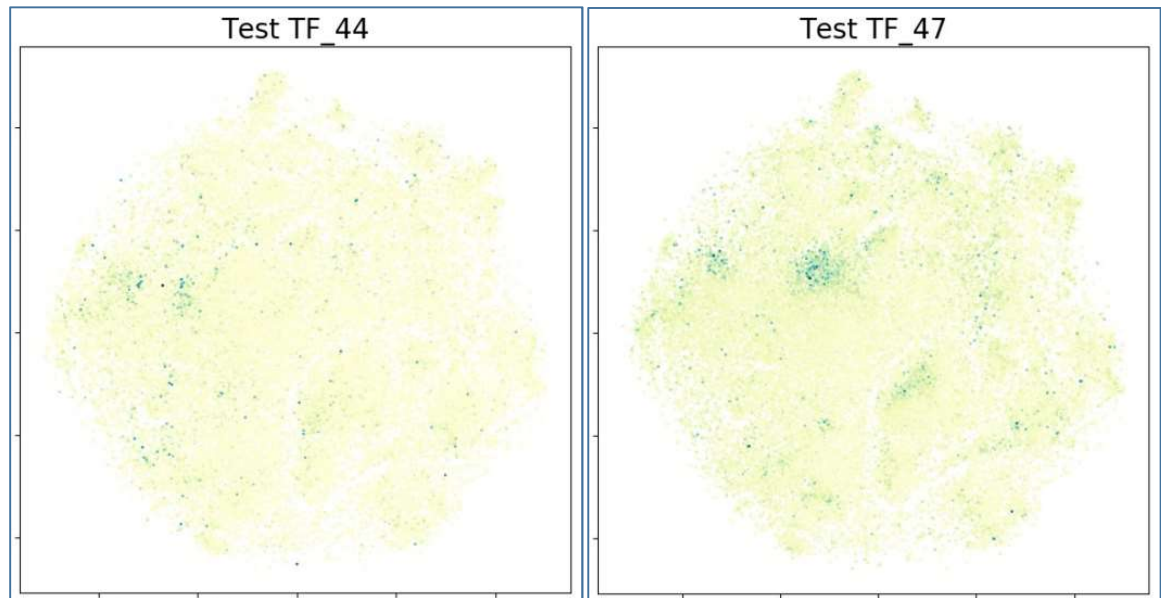
TF_1: Ar	TF_11: Nr2f6	TF_12: Nr4a2
TF_17: Rorb	TF_40: Esrrb	TF_41: Esrrg
TF_48: Nr2e1	TF_49: Nr2f1	TF_50: Nr5a2
TF_52: Rarg	TF_54: Rora	

TF_1, TF_40: 0.457	TF_1, TF_41: 0.0545	TF_1, TF_11: 0.0203
TF_1, TF_12: 0.280	TF_1, TF_48: 0.157	TF_1, TF_17: 0.0397
TF_1, TF_49: -0.0251	TF_1, TF_50: 0.262	TF_1, TF_52: 0.136
TF_1, TF_54: 0.256	TF_40, TF_41: 0.290	TF_11, TF_40: 0.266
TF_12, TF_40: 0.482	TF_40, TF_48: 0.336	TF_17, TF_40: 0.204
TF_40, TF_49: 0.118	TF_40, TF_50: 0.606	TF_40, TF_52: 0.357
TF_40, TF_54: 0.431	TF_11, TF_41: 0.451	TF_12, TF_41: 0.285
TF_41, TF_48: 0.207	TF_17, TF_41: 0.375	TF_41, TF_49: 0.409
TF_41, TF_50: 0.508	TF_41, TF_52: 0.457	TF_41, TF_54: 0.282
TF_11, TF_12: 0.386	TF_11, TF_48: 0.280	TF_11, TF_17: 0.651
TF_11, TF_49: 0.610	TF_11, TF_50: 0.400	TF_11, TF_52: 0.720
TF_11, TF_54: 0.507	TF_12, TF_48: 0.389	TF_12, TF_17: 0.362
TF_12, TF_49: 0.337	TF_12, TF_50: 0.437	TF_12, TF_52: 0.508
TF_12, TF_54: 0.477	TF_17, TF_48: 0.251	TF_48, TF_49: 0.262
TF_48, TF_50: 0.263	TF_48, TF_52: 0.376	TF_48, TF_54: 0.309
TF_17, TF_49: 0.640	TF_17, TF_50: 0.326	TF_17, TF_52: 0.681
TF_17, TF_54: 0.750	TF_49, TF_50: 0.266	TF_49, TF_52: 0.659
TF_49, TF_54: 0.449	TF_50, TF_52: 0.433	TF_50, TF_54: 0.453
TF_52, TF_54: 0.607		

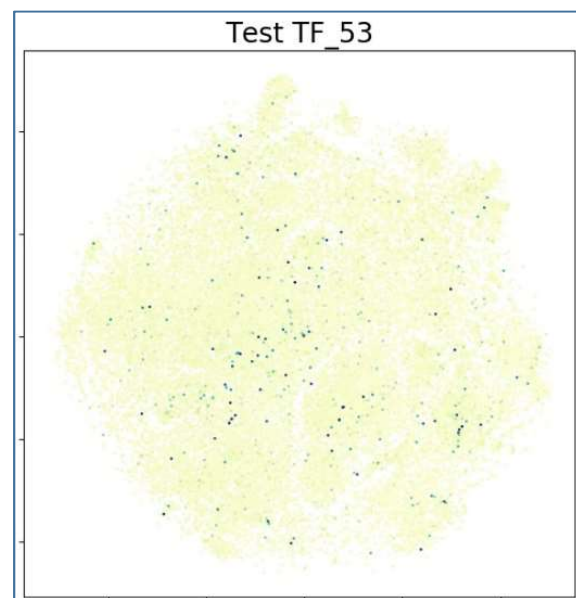
Others

GATA

Homeodomain



RFX



TF_44: Gata4 TF_47: Nkx2-9 TF_53: Rfx7