



**b**

Dataset ID/name	Contexts	Conditions	Context counts	Perturbation counts
CrossSpecies	Species	Multi	4	2
Afriat	Cell lines	Multi	2	3
McFarland	Cell lines	Multi	5	12
TCDD	Cell lines	Multi	6	2
Sciplex3	Cell lines	Multi	3	10

Dataset ID/name	Contexts	Conditions	Context counts	Perturbation counts
KangCrossCell	Cell lines	Single	8	2
Parekh	Cell lines	Single	3	11
KangCrossPatient	Patients	Single	8	2
Haber	Cell lines	Single	8	4
KaggleCrossPatient	Patients	Single	3	11
CrossPatient	Patients	Single	6	3
KaggleCrossCell	Cell lines	Single	5	11

**c**

Dataset ID/name	Perturbation type	Is combination	Perturbation counts
Adamson	Genetic	No	77
Frangieh		No	212
TianActivation		No	93
TianInhibition		No	181
Replogle-exp7		No	105
Replogle-exp8		No	62
Papalexi		No	26
Replogle-RPE1essential		No	1331
Replogle-K562-essential		No	1618

Dataset ID/name	Perturbation type	Is combination	Perturbation counts
Norman	Genetic	Yes	227
Wessels		Yes	128
Schmidt		Yes	148
Replogle-exp6		Yes	70
Sciplex3-A549	Chemical	No	188
Sciplex3-MCF7		No	188
Sciplex3-K562		No	188
Sciplex3-comb		Yes	32