

Tool	Runtime (min): mpXMS GX12	Runtime (min): mpXMS GX38
BFF	0.67	1.82
DemuxEM	4.68	3.8
GMM-Demux	0.18	0.64
HashedDrops	2.4	6.8
HashSolo	4.28	5.35
HTODemux	0.58	1.37
Multiseq	0.40	0.65

*Table S1: Runtime (in minutes) of individual hashing-based deconvolution tools applied to the mpXMS:gx12 and mpXMS:gx38 dataset.*

Method	R <sup>2</sup> ndonors	p.adj
Freemuxlet	0.16	0.002
Vireo	0.13	0.006
Souporcell	0.12	0.006
scSplit	0.05	0.05
Demuxlet(GT)	0.12	0.006
Vireo(GT)	0.2	0.0003

*Table S2: R-squared values of the linear model testing for association of the percent matched singlets with number of donors for each pool.*