

Features	Cell types		Cocktails	Efficiency	Reference
	From	To			
GMT-based cocktail	CF, TTF	MYH6-GFP+	GMT	~ 20%	Ieda et al., 2010
microRNA	CF, MEF	Beating cells	GMT , miR-133	7 fold more	Muraoka et al., 2014
	HCF	TNNT2+	GMT , MESP1, MYOCD, miR-133	23-27%	
	CF	MYH6-GFP+	GMT	~ 30%	Mohamed et al., 2017
	HCF	TNNT2-GCaMP5+	GMT , MYOCD, ESRRG, MESP1, ZFPM2	~ 12%	
Chemical compound	MEF, TTF	Beating cells	GMT or GHMT	100 fold	Yamakawa et al., 2015
	TTF	Beating cells	GMT or GHMT	4 fold	Muraoka et al., 2019
Polycistronic puro selection	CF	Beating cells	polycistronic MGT	10 fold	Wang et al., 2014
	CFs, TTFs	MYH6-GFP+/TNNT2+	GHMT	5-20%	Song et al., 2012
	MEF CF, TTF	Beating cells	GHMT Akt1	50.0% ~0.8%	Zhou et al., 2015
	MEF, CF, TTF	MYH6-GFP+/TNNT2+ Beating cells	GHMT , Akt1, PHF7	> 20% ~2 fold	Garry et al., 2021
Optimized GHMT-based cocktail	HCF	MYH6-GFP+/TNNT2+	GHMT , Myocd, PHF7	~ 3%	
	MEF, TTF	Sarcomere+/HCN4-GFP+ Sarcomere+/HCN4-GFP-/MYL2+ Sarcomere+/HCN4-GFP-/NPPA+	GHMT	1% x ~32% 1% x ~22% 1% x ~35%	Nam et al., 2014
	MEF	MYL7+/TNNT3+ MYL2+/TNNT3+ Sarcomere+, beating cells	Polycistronic M-G-T-H	~26% ~16% ~5-6 fold	Zhang et al., 2019, 2021
	H9F HCF, HDF	MYH6-mCherry+/TNNT2+ ACTN2+/TNNT2+	GMT, ESRRG, MESP1, MYOCD, ZFPM2 (7F)	13.0% ± 9.3% 1-4%	Fu et al., 2013
Human Fibroblasts	HFF, AHCF, AHDF	TNNT2+	GHT, Myocd, miR-1, miR-133 (6F)	~10-35%	Nam et al., 2013
	HCF, HDF	ACTN2+ or TNNT2+	GMT, Mesp1, Myocd (GMTMM)	~ 5%	Wada et al., 2013
	H9F, HCF	TNNT2+	Polycistronic hMGT + miR-133 (MGT133)	40-60%	Garbutt et al., 2020
MicroRNA combo	MEF, CF	MYH6-CFP+	miR-1, miR-133, miR-208, miR-499 (miRcombo)	~13-27%	Jayawardena et al., 2012
	MEF, TTF	ACTN2+ or MYH6+	small-molecule combination CRFVPT	~10-15%	Fu et al., 2015
	HFF	TNNT2+ cells	9 chemical compounds (9C)	6.6 ± 0.4%	Cao et al., 2016
	HLF			5.5%	
Chemical only approach					