

Supplemental Table 1. Experimental conditions used during validation of SCG protocol

FACS Sort	Dye	Amplification Kit	Strains	Reactions	Date	Freeze Thaw	Duplicate Genotyping	No mixed	Experimental Condition (Fig1C col)
1	Unstained	NEB	3D7/Dd2	50	3/16/2012	No	No	No	1
2	MitoTracker	NEB	3D7/Dd2	15	3/16/2012	No	No	No	2
3	MitoTracker	NEB	Malawi/Thai	80	4/9/2012	No	No	No	2
4	VybrantGreen	NEB	3D7/Dd2	15	3/16/2012	No	No	No	3
5	VybrantGreen	NEB	Hb3/Dd2	26	8/2/2012	No	No	No	3
5	VybrantGreen	NEB	Hb3/Dd2	26	8/2/2012	No	Yes	Yes	4
5	VybrantGreen	NEB	Hb3/Dd2	26	8/2/2012	No	Yes	Yes	5
6	VybrantGreen	MINI	Hb3/Dd2	12	8/25/2012	No	No	No	6
6	VybrantGreen	MINI	Hb3/Dd2	12	8/25/2012	No	No	Yes	7
6	VybrantGreen	MINI	Hb3/Dd2	12	8/25/2012	No	Yes	Yes	8
7	VybrantGreen	MIDI	Hb3/Dd2	22	8/25/2012	No	No	No	9
7	VybrantGreen	MIDI	Hb3/Dd2	22	8/25/2012	No	No	Yes	10
7	VybrantGreen	MIDI	Hb3/Dd2	22	8/25/2012	No	Yes	Yes	11
8	VybrantGreen	MIDI	Hb3/Dd2	22	8/25/2012	Yes	No	No	12
9	VybrantGreen	MIDI	Hb3/3D7	24	5/15/2013	Yes	No	No	12
8	VybrantGreen	MIDI	Hb3/Dd2	22	8/25/2012	Yes	No	Yes	13
9	VybrantGreen	MIDI	Hb3/3D7	24	5/15/2013	Yes	No	Yes	13
8	VybrantGreen	MIDI	Hb3/Dd2	22	8/25/2012	Yes	Yes	Yes	14
9	VybrantGreen	MIDI	Hb3/3D7	24	5/15/2013	Yes	Yes	Yes	14

*Data from two field isolates, these contributed to estimating the coverage (%SNPs called) of this condition alone