

Table S1 Oligonucleotide sequence and modification

Name	5' Modification	3' Modification	Sequence 5'-->3'
Arm1_long	Azide	None	TTTTTTCATCGCCCTTGGACTACGACTAAATCGTGAGTCTGACTCGACTGGATG
Arm2_long	None	Azide	GACTGGATGGAGTCAGACTTCGTGTCTAAAGTCCGTTACCTTGATTTCTCTC
Arm1	Azide	None	TTTTTTCATCGCCCTTGGACTACGACTAAATCGTG
Arm2	Phosphate	Azide	TCGTGTCTAAAGTCCGTTACCTTGATTTCTCTC
Arm1Capture	Biotin	None	CTCTCTCTCTCTCTCTCATCCAGTCGAGTCAGACT
Arm2Capture	None	Biotin	AGTCTGACTCCATCCAGTCTCTCTCTCTCTCTCTCTC
S3primer_long	Amino Modifier C6	None	AAAAAAAAAACATATGACAGAAGTAGACTCTTAGTCTGACTCGACTGGATG
S3block_long	Amino Modifier C6	None	AAAAAAAAAAGACGCTAATAGTTAAGACGCTTAGTCTGACTCGACTGGATG
S3primer	Amino Modifier C6	None	AAAAAAAAAACATATGACAGAAGTAGACT
S3block	Amino Modifier C6	None	AAAAAAAAAAGACGCTAATAGTTAAGACG
S3Capture	Biotin	None	CTCTCTCTCTCTCTCTCATCCAGTCGAGTCAGACTAA
BioFwd	None	None	CATCGCCCTTGGACTACGA
BioRev	None	None	GGGAATCAAGGTAACGGACTTTAG
BioSplint	None	None	TACTTAGACACGACACGATTTAGTTT
S3 padlock	Phosphate	None	CTATTAGCGTCCAGTGAATGCGAGTCCGTCTAAGAGAGTAGTACAGCAGCCGTCAAGCGTCTTAA