

Supplementary Table 1: Activity of Nm Cas9 at endogenous loci

Gene	gRNA	Sequence				Indels (%)		NHEJ Primers	
			NNNN	PAM	Length	2-RNA	sgRNA	Forward	Reverse
HPRT1	NM_01	GTCATTATGCTGAGGATTTGGAAA	GGGT	GTTT	24	38	8	GTGTCACCACACCCGGCTAA	CCTACAGAGTCCCACATATAACCAC
HPRT1	NM_02	GCATTATGCTGAGGATTTGGAAA	GGGT	GTTT	23	45	18		
HPRT1	NM_03	GATTATGCTGAGGATTTGGAAA	GGGT	GTTT	22	37	24		
HPRT1	NM_04	GTTATGCTGAGGATTTGGAAA	GGGT	GTTT	21	26	35		
HPRT1	NM_05	GTATGCTGAGGATTTGGAAA	GGGT	GTTT	20	2	8		
RYS2	NM_06	GGCAATAACAAGTCTCTTCCTGGT	AGGA	GATT	24	10	<	AAGGAAGGAAGGGAGGGAGG	GTGGTCTGAAGATGCCAATGGT
RYS2	NM_07	GCAATAACAAGTCTCTTCCTGGT	AGGA	GATT	23	12	<		
RYS2	NM_08	GAATAACAAGTCTCTTCCTGGT	AGGA	GATT	22	6	<		
RYS2	NM_09	GATAACAAGTCTCTTCCTGGT	AGGA	GATT	21	3	<		
RYS2	NM_010	GTAACAAGTCTCTTCCTGGT	AGGA	GATT	20	<	<		
HPRT1	NM_041	GGCATTACAGGATACAAACATTTG	ATTG	GATT	24	20	<	GTGTCACCACACCCGGCTAA	CCTACAGAGTCCCACATATAACCAC
HPRT1	NM_042	GCATTACAGGATACAAACATTTG	ATTG	GATT	23	25	<		
HPRT1	NM_043	GATTACAGGATACAAACATTTG	ATTG	GATT	22	27	15		
HPRT1	NM_044	GTTACAGGATACAAACATTTG	ATTG	GATT	21	25	12		
HPRT1	NM_045	GTACAGGATACAAACATTTG	ATTG	GATT	20	8	13		
HPRT1	NM_046	GTGAGAGCATTACAGGATACAAAC	ATTT	GATT	24	18	4	GTGTCACCACACCCGGCTAA	CCTACAGAGTCCCACATATAACCAC
HPRT1	NM_047	GGAGAGCATTACAGGATACAAAC	ATTT	GATT	23	18	6		
HPRT1	NM_048	GAGAGCATTACAGGATACAAAC	ATTT	GATT	22	22	8		
HPRT1	NM_049	GGAGCATTACAGGATACAAAC	ATTT	GATT	21	12	<		
HPRT1	NM_050	GAGCATTACAGGATACAAAC	ATTT	GATT	20	12	14		
HPRT1	NM_051	GAGTGATGATGAACCAGGTTATGA	CCTT	GATT	24	28	26	GTGTCACCACACCCGGCTAA	CCTACAGAGTCCCACATATAACCAC
HPRT1	NM_052	GGTGATGATGAACCAGGTTATGA	CCTT	GATT	23	22	53		
HPRT1	NM_053	GTGATGATGAACCAGGTTATGA	CCTT	GATT	22	24	<		
HPRT1	NM_054	GGATGATGAACCAGGTTATGA	CCTT	GATT	21	4	45		
HPRT1	NM_055	GATGATGAACCAGGTTATGA	CCTT	GATT	20	3	74		
IL2RG	NM_066	GAAGGAGAAGTTATGCTATAATC	CACT	GATT	24	4	27	TGAGAGAGAACTGGGCAGTAGCAG	CAAGAGTTTAGGGATGTGGCCAAG
IL2RG	NM_067	GAGGAGAAGTTATGCTATAATC	CACT	GATT	23	5	33		
IL2RG	NM_068	GGGAGAAGTTATGCTATAATC	CACT	GATT	22	1	31		
IL2RG	NM_069	GGAGAAGTTATGCTATAATC	CACT	GATT	21	<	16		
IL2RG	NM_070	GAGAAGTTATGCTATAATC	CACT	GATT	20	<	17		
IL2RG	NM_071	GCTCTTCTCCTCAAGGAACAATC	AGTG	GATT	24	17	35	TGAGAGAGAACTGGGCAGTAGCAG	CAAGAGTTTAGGGATGTGGCCAAG
IL2RG	NM_072	GTCTTCTCCTCAAGGAACAATC	AGTG	GATT	23	6	43		
IL2RG	NM_073	GCTTCTCCTCAAGGAACAATC	AGTG	GATT	22	9	47		
IL2RG	NM_074	GTTTCTCCTCAAGGAACAATC	AGTG	GATT	21	2	37		
IL2RG	NM_075	GTCTCCTCAAGGAACAATC	AGTG	GATT	20	<	31		
CTNS	NM_076	GCAGCGCCATTAGCATATAAAC	AGGT	GATT	24	12	9	AACAGGTTGTGGTGCCTCCTGG	ATCGGCAGCCTTGCTGGAAC

<i>CTNS</i>	NM_077	GAGCGCCATTAGCATCATAAACC	AGGT	GATT	23	14	10		
<i>CTNS</i>	NM_078	GGCGCCATTAGCATCATAAACC	AGGT	GATT	22	11	8		
<i>CTNS</i>	NM_079	GCGCCATTAGCATCATAAACC	AGGT	GATT	21	4	16		
<i>CTNS</i>	NM_080	GGCCATTAGCATCATAAACC	AGGT	GATT	20	<	<		
<i>AAVS1</i>	NM_086	GACCCACAGTGGGGCCACTAGGG	ACAG	GATT	24	39	1	GTCCACTTCAGGACAGCATGTTG	TGGCTACTGGCCTTATCTCACAGG
<i>AAVS1</i>	NM_087	GCCCCACAGTGGGGCCACTAGGG	ACAG	GATT	23	35	1		
<i>AAVS1</i>	NM_088	GCCCCACAGTGGGGCCACTAGGG	ACAG	GATT	22	44	<		
<i>AAVS1</i>	NM_089	GCCACAGTGGGGCCACTAGGG	ACAG	GATT	21	<	6		
<i>AAVS1</i>	NM_090	GCACAGTGGGGCCACTAGGG	ACAG	GATT	20	<	<		
<i>AAVS1</i>	NM_091	GGGTCTAACCCCCACCTCCTGTTA	GGCA	GATT	24	16	<	GTCCACTTCAGGACAGCATGTTG	TGGCTACTGGCCTTATCTCACAGG
<i>AAVS1</i>	NM_092	GGTCTAACCCCCACCTCCTGTTA	GGCA	GATT	23	18	<		
<i>AAVS1</i>	NM_093	GTCTAACCCCCACCTCCTGTTA	GGCA	GATT	22	22	<		
<i>AAVS1</i>	NM_094	GCTAACCCCCACCTCCTGTTA	GGCA	GATT	21	1	<		
<i>AAVS1</i>	NM_095	GTAACCCCCACCTCCTGTTA	GGCA	GATT	20	<	<		
<i>CLK3</i>	NM_0113	GGAGGGTCACCTGGTGTGCCGGAT	CGGC	GATT	24	4	<	CATTCAGGCAATTACTGGTGGCCC	TTGACGTGTCCCTTGCAATATCCC
<i>CLK3</i>	NM_0114	GAGGGTCACCTGGTGTGCCGGAT	CGGC	GATT	32	4	<		
<i>CLK3</i>	NM_0115	GGGGTCACCTGGTGTGCCGGAT	CGGC	GATT	22	4	<		
<i>CLK3</i>	NM_0116	GGGTCACCTGGTGTGCCGGAT	CGGC	GATT	21	8	<		
<i>CLK3</i>	NM_0117	GGTCACCTGGTGTGCCGGAT	CGGC	GATT	20	<	<		
<i>DHFR</i>	NM_0118	GTGATTTATAGGTAACAGAAATC	TGGT	GATT	24	30	33	GCAGACTCCACACAGACGGT	GGCCTACTGAATGATGGTTCAAG
<i>DHFR</i>	NM_0119	GGATTTTATAGGTAACAGAAATC	TGGT	GATT	23	31	32		
<i>DHFR</i>	NM_0120	GATTTTATAGGTAACAGAAATC	TGGT	GATT	22	37	37		
<i>DHFR</i>	NM_0121	GTTTATAGGTAACAGAAATC	TGGT	GATT	21	18	36		
<i>DHFR</i>	NM_0122	GTTTATAGGTAACAGAAATC	TGGT	GATT	20	13	25		
<i>F8</i>	NM_0128	GGTTTCTAGTTGTGACAAGAACAC	TGGT	GATT	24	39	36	GGGAGAGAACCTCTAACAGAACG	GCTCCAGGTGATGGATCATCAG
<i>F8</i>	NM_0129	GTTTCTAGTTGTGACAAGAACAC	TGGT	GATT	32	43	34		
<i>F8</i>	NM_0130	GTTCTAGTTGTGACAAGAACAC	TGGT	GATT	22	48	30		
<i>F8</i>	NM_0131	GTCTAGTTGTGACAAGAACAC	TGGT	GATT	21	54	13		
<i>F8</i>	NM_0132	GCTAGTTGTGACAAGAACAC	TGGT	GATT	20	<	2		
<i>F8_a</i>	NM_0123	GCTGATGTCGGTCCTTTGTATTCA	AGGA	GATT	24	<	15	CCTCCATGCATGCCAAGGAAC	GGAAGCTGCAGCAAGAATCCTGA
<i>F8_a</i>	NM_0124	GTGATGTCGGTCCTTTGTATTCA	AGGA	GATT	32	<	<		
<i>F8_a</i>	NM_0125	GGATGTCGGTCCTTTGTATTCA	AGGA	GATT	22	<	<		
<i>F8_a</i>	NM_0126	GATGTCGGTCCTTTGTATTCA	AGGA	GATT	21	<	<		
<i>F8_a</i>	NM_0127	GTGTCGGTCCTTTGTATTCA	AGGA	GATT	20	<	<		