

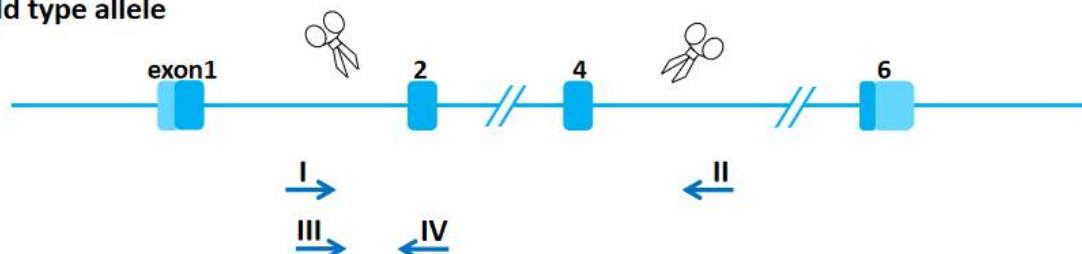
Xpa-KO Genotyping Protocol



Common Name	Xpa-KO	Cat. NO.	NM-KO-240559
Strain of Origin	C57BL/6J	Version	V1

Genotyping strategy

Wild type allele



knockout allele



■ : coding region ■ : uncoding region

✂ : Cas9/gRNA ■ : mutation

NHEJ : Non-homologous end joining

→ : primer location

Primers

Primer	Sequence (5'→3')	Primer type
P1	GCCTCAGGAGGCTGTTCTTT	Forward
P2	CCCAGGCATCTGTGAAGGAG	Reverse
P3	CACCGCCTGTGAGAGGAAG	Forward
P4	CTTCCCCTCCCTCTACTCCT	Reverse

Expected results

Results	
Genotype	Knockout type: -8943 bp Wild type: P3P4 =488 bp Heterozygote: P1P2 =551 bp; P3P4 =488 bp Homozygote: P1P2 =551 bp

Note: In both wild-type and heterozygous mice, whether the P1 and P2 primers can amplify larger bands does not affect the interpretation of the results, because the purpose of designing this pair of primers is to amplify KO band

Reaction &Cycling

PCR Reaction System	Reaction Component			Volume (µl)
	ddH ₂ O			8.0
	2×Rapid Taq Master Mix			10.0
	P1(10 pmol/µl) or P3(10 pmol/µl)			0.5
	P2(10 pmol/µl) or P4(10 pmol/µl)			0.5
	Genomic DNA			1.0
	Total			20
	2×Rapid Taq Master Mix from Vazyme(Code Number: P222-01)			
Cycling Reaction	Step	Temp	Time	Note
	1	95°C	5 min	
	2	95°C	20 sec	
	3	60°C	20 sec	
	4	72°C	20 sec	35 repeats to 2
	5	72°C	5 min	
	6	12°C	Hold	