

Table S7 List of plasmids generated and used in this study

Plasmid ID ¹	Plasmid Name	Backbone	Features	Purpose	Source/Reference
Vectors used for plasmid construction					
Ec-312	pRS415	pRS415	<i>CEN</i> vector, <i>LEU2</i> , <i>amp^R</i>	backbone for plasmid construction	[106]
Ec-432	pFA6a- <i>kanMX4</i>		<i>kanMX4</i>	amplification of the <i>kanMX4</i> cassette	[107]
Ec-1579	pFA6a- <i>hphNT1</i> (pKS133-6)		<i>hphNT1</i>	amplification of the <i>hphNT1</i> cassette	[108]
Ec-3108	pYM12-1	pFA6a	<i>eGFP-kanMX6</i>	amplification of the <i>eGFP-kanMX6</i> cassette	[109]
Plasmids for construction of the <i>Sd. ludwigii</i> isogenic diploid strain (YLFP18-1²)					
Ec-4664	pFP6-1	Ec-312	<i>URA3</i>	cloning of <i>Sd. ludwigii URA3</i>	this study
Ec-4528	pFP2-1	Ec-312	<i>Δura3::kanMX4</i> ³	deletion of <i>Sd. ludwigii URA3</i>	this study
Ec-4526	pFP1-1	Ec-312	<i>Δura3::hphNT1</i> ⁴	deletion of <i>Sd. ludwigii URA3</i>	this study
Ec-4648	pFP4-1	Ec-312	<i>MATα</i>	cloning of <i>Sd. ludwigii MATα</i>	this study
Ec-4727	pMaM64	Ec-312	<i>Δmata::Δura3::kanMX4</i>	deletion of <i>Sd. ludwigii MATα</i>	this study
Ec-4682	pMaM55	Ec-312	<i>MATα</i>	cloning of <i>Sd. ludwigii MATα</i>	this study
Plasmids for functional analyses of meiotic genes					
Ec-4672	pFP10-1	Ec-312	<i>SPO11</i>	cloning of <i>Sd. ludwigii SPO11</i>	this study
Ec-4695	pFP15-1	Ec-312	<i>Δspo11::kanMX4</i> ³	deletion of <i>Sd. ludwigii SPO11</i>	this study
Ec-5101	pFP41-1	Ec-312	<i>RAD51</i>	cloning of <i>Sd. ludwigii RAD51</i>	this study
Ec-5105	pFP42-1	Ec-312	<i>Δrad51::kanMX4</i> ³	deletion of <i>Sd. ludwigii RAD51</i>	this study
Ec-5219	pFP44-1	Ec-312	<i>DMC1</i>	cloning of <i>Sd. ludwigii DMC1</i>	this study
Ec-5225	pFP46-1	Ec-312	<i>Δdmc1::kanMX4</i> ³	deletion of <i>Sd. ludwigii DMC1</i>	this study
Ec-4709	pFP17-1	Ec-312	<i>SAE2</i>	cloning of <i>Sd. ludwigii SAE2</i>	this study
Ec-4725	pFP21-1	Ec-312	<i>Δsae2::kanMX4</i> ³	deletion of <i>Sd. ludwigii SAE2</i>	this study
Ec-4963	pFP35-1	Ec-312	<i>RAP1</i>	cloning of <i>Sd. ludwigii RAP1</i>	this study
Ec-5017	pFP39-1	Ec-312	<i>RAP1-eGFP-kanMX6</i> ⁵	tagging of <i>Sd. ludwigii RAP1</i> with <i>eGFP</i>	this study

¹ Database ID numbers of plasmids correspond to their permanent identifiers in the Knop lab collection of *Escherichia coli* host strain DH5α clones.

² See Supplementary Table 1.

³ The *kanMX4* cassette was amplified from plasmid Ec-432.

⁴ The *hphNT1* cassette was amplified from plasmid Ec-1579.

⁵ The *eGFP-kanMX6* cassette was amplified from plasmid Ec-3108.