

Supplemental Table S2. Studies that have used fluorescent protein to investigate RAD51 foci formation and function. FP: Fluorescent protein. Ns: Not shown; CHO: Chinese Hamster Ovary; ES cells: Embryonic Stem cells.

Reference	FP	N- or C-Term. fusion	Complementation	Foci (somatic cells)	Foci (Meiotic cells)	Organism
[1-3]	YFP	N-terminal	Partial complementation	+	Ns	<i>Saccharomyces cerevisiae</i>
[4, 5]	YFP	N-terminal	Complementation ¹	+	Ns	<i>Saccharomyces cerevisiae</i>
[6, 7]	GFP	N-terminal	Mutant not shown but no dominant negative effect	+	Ns	CHO cells and mouse ES cells
[8]	GFP, YFP, CFP	N-terminal	Mutant not shown but no dominant negative effect	+	Ns	CHO cells and mouse ES cells
[9]	GFP	N-terminal	Complementation and no dominant negative effect	+	Ns	mouse ES cells
[10]	GFP	N-terminal	Complementation	+	Ns	Human cells (HEK293)
[11]	GFP	N-terminal	Complementation	+	Ns	Human cells (HEK293) and Chicken DT40 cells
[12]	GFP	N-terminal	Complementation	+	Ns	Human cells (HEK293)
[13-15]	GFP	N-terminal	Partial complementation and no dominant negative effect	+	Ns	<i>Ustilago maydis</i>
[16]	GFP	N-terminal	Complementation	+	Ns	<i>Magnaporthe oryzae</i>
[17]	CFP	C-terminal	Ns	+	Ns	<i>Saccharomyces cerevisiae</i>
[18]	CFP	C-terminal	Ns	+	Ns	<i>Saccharomyces cerevisiae</i>
[19, 20]	CFP	C-terminal	Does not complement	+	Ns	<i>Schizosaccharomyces pombe</i>
[11]	GFP	C-terminal	C-terminal fusion does not complement <i>rad51</i> ^{-/-}	Ns	Ns	Chicken DT40 cells
[12]	GFP	C-terminal	C-terminal fusion does not complement and has dominant negative effect	Ns	Ns	Human cells (HEK293)
[21]	GFP	C-terminal	Ns	+	Ns	<i>Trypanosoma brucei</i>
[22-24]	GFP, RFP	C-terminal	Ns	ns	+	<i>Sordaria macrospora</i>

¹YFP was fused to a *rad51*-I345T mutant encoding protein with a higher affinity for DNA than wild-type RAD51

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