

Table 1
Maturation rates of GFPs and YFPs.

	Wild-type	GFP-S65T	EGFP	GFP-S65T/S147P	GFPmut2	GFPmut3	sgGFP	Emerald	GFPuv	GFPuv3	GFPuv4	GFPuv5	GFPm	sfGFP	EYFP	Venus	
Mutation sites		S65T	F64L S65T	S65T S147P	S65A V68L S72A	S65G S72A	F64L S65C I167T	F64L S65T S72A N149K M153T I167T	F99S M153T V163A	F64L S65T F99S M153T V163A	F64L S65T F99S M153T V163A S208L	F64L S65T F99S M153T V163A S208L	S65G S72A F99S M153T V163A	S30R Y39N F64L S65T F99S N105T Y145F M153T V163A I171V A206V	S65G V68L S72A T203Y V68L S72A M153T S175G T203Y	F46L F64L S65G V68L S72A M153T V163A S175G T203Y	
This study ^a	$k (10^{-3} s^{-1})$ $\tau (s)$	0.31 3200	1.0 1000	1.2 830	1.4 710	2.2 450	2.2 450	1.7 590	1.4 710	0.45 2200	1.1 910	1.1 910	1.7 590	2.9 340	1400	1400	2400
Previous studies	$k (10^{-3} s^{-1})$ $\tau (s)$	0.14 ^b 7200 ^b	0.62 ^b 0.137 ^c 0.151 ^d 1620 ^b 7300 ^c 6620 ^d	~ 0.28 ^e 0.18 ^f 0.13 ^g ~3600 ^e	-	-	-	3.1 ^h 320 ^h	-	0.30 ⁱ 3300 ⁱ	-	-	-	-	2.53 ^j 395 ^j	8.04 ^k 124 ^k 0.17 ^k 5900 ^k	

Note. The residue numbering of GFP and YFP variants does not include the residue (Ala or Val) inserted at position 2. EGFP, Emerald, EYFP, and Venus contain the additional mutation H231L. The other variants contain the Q80R mutation, which may have resulted from a PCR error in the initially amplified complementary DNA (cDNA) clone [29]. These mutations are considered neutral. τ is the reciprocal of the rate constant.

^a Values were obtained at 37 °C.

^b Rates of de novo synthesized GFPs in vivo. Values were taken from Ref. [5].

^c Rate of GFP prepared from inclusion bodies at room temperature. Values were taken from Ref. [9].

^d Reoxidation rate of GFP with a reduced chromophore at room temperature. Values were taken from Ref. [9].

^e Rate of GFP prepared from inclusion bodies at 30 °C. Values were taken from Ref. [30].

^f Reoxidation rate of GFP with a reduced chromophore at 25 °C. Values were taken from Ref. [11].

^g Reoxidation rate of GFP with a reduced chromophore at 37 °C. Values were taken from Ref. [13].

^h Rate of de novo synthesized GFP in vitro at approximately 25 °C. Values were taken from Ref. [31].

ⁱ Reoxidation rate of GFP with a reduced chromophore at 25 °C. Values were taken from Ref. [32].

^j Reoxidation rates of YFPs with a reduced chromophore at 37 °C. Values were taken from Ref. [10].

^k Reoxidation rate of YFP with a reduced chromophore at 37 °C. Values were taken from Ref. [12].

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