Table 2. Summary of key kinetic constants of enzymatically characterized Rubisco enzymes. Enzymes are classifed according to their sequence relatedness as depicted in Figure 1. Ω values (rounded and averaged) for purified enzymes were obtained by the dual label specificity assay in this laboratory (Lee et al. 1991; Read and Tabita 1992a, b; 1994; Hernandez et al. 1996; Horken and Tabita 1999, and unpublished results) except the *Anabaena* (Larimer and Soper 1993), vent symbiont (Stein and Felbeck 1993), *H. marinus* (Igarashi and Kodama 1996), *C. reinhardtii* (Jordan and Ogren 1981), *G. partita* and *C. caldarium (*Uemura et al. 1997), and *C. vinosum* (Jordan and Chollet 1985) enzymes which were determined by this (Jordan and Ogren 1981; Jordan and Chollet 1985) and other methods (Larimer and Soper 1993; Stein and Felbeck 1993; Igarashi and Kodama 1996; Uemura et al. 1997) elsewhere. ND, not determined. Putative Type III/IV Rubisco sequences are from Bult et al. 1996, Klenk et al. 1997, or from existing sequence databases

Rubisco type	Organism	$V_{CO_2}K_{O_2}/V_{O_2}K_{CO_2}$ (Ω)	K_{CO_2} (μM)
Type IA	*Rhodobacter capsulatus*	25	30
	Hydrogenovibrio marinus	25	ND
	Chromatium vinosum	40	35
	Thiobacillus denitrificans I	45	140
	Vent symbiont	30	80
Type IB	Cyanobacteria		
	Synechococcus 6301	40	175
	Anabaena 7120	35	150
	Green algae		
	Chlamydomonas reinhardtii	60	30
	Plants – many species	80	10–30
Type IC	Purple bacteria class		
	Bradyrhizobium japonicum	75	65
	Xanthobacter flavus	45	100
	Rhodobacter sphaeroides	60	25
	Ralstonia eutropha	75	ND
Type ID	Marine nongreen algae		
	Cylindrotheca sp. strain N1	105	30
	Olisthodiscus luteus	100	60
	Porphyridium cruentum	130	20
	Cylindrotheca fusiformis	110	35
	Cyanidium caldarium	225	5
	Galdieria partita	240	5
Type II	*Rhodospirillum rubrum*	15	100
	Rhodobacter sphaeroides II	10	100
	Thiobacillus denitrificans II	10	250
Type III/IV?	*Methanococcus jannaschii*		
	Archaeoglobus fulgidus 1		
	Archaeoglobus fulgidus 2		
	Pyrococcus horikoschii		
	Pyrococcus kodakaraensis		
	Bacillus subtilis		
	Chlorobium tepidum		

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