TABLE I

Table 1. Mean open and closed time constants of single CRCs in various experimental conditions

	P_o	Open		Closed	
		τ_o (ms)	Proportion (%)	τ_c (ms)	Proportion (%)
Native RyR1					
10 μM Ca^{2+} (12)	0.175 ± 0.08	0.318 ± 0.025	93.79 ± 1.66	1.372 ± 0.116	44.10 ± 3.86
		3.674 ± 0.407	6.21 ± 1.66	5.861 ± 0.477	55.90 ± 3.86
10 μM Ca^{2+} + 10 μM DIDS (10)	0.451 ± 0.038*	0.674 ± 0.276	79.95 ± 3.10	1.063 ± 0.327	56.19 ± 5.88
		10.200 ± 3.524	16.35 ± 1.95	9.807 ± 3.393	34.84 ± 3.35
		16.820 ± 5.340	3.70 ± 1.15	29.067 ± 11.643	8.97 ± 2.53
10 μM Ca^{2+} + 3 mM caffeine (4)	0.300 ± 0.02*	0.302 ± 0.014	88.95 ± 1.20	0.919 ± 0.092	63.95 ± 3.50
		4.532 ± 0.648	11.05 ± 1.20	3.467 ± 0.196	36.05 ± 3.50
Purified RyR1					
10 μM Ca^{2+} (25)	0.159 ± 0.014	0.366 ± 0.016	84.48 ± 2.76	0.885 ± 0.069	53.21 ± 3.67
		3.722 ± 0.471	15.52 ± 2.76	6.193 ± 0.499	46.79 ± 3.67
10 μM Ca^{2+} + 10 μM DIDS (14)	0.206 ± 0.025	0.359 ± 0.030	89.65 ± 2.01	0.848 ± 0.061	52.32 ± 3.53
		3.639 ± 0.563	10.35 ± 2.01	7.142 ± 0.860	47.68 ± 3.53
10 μM Ca^{2+} + 10 μM DIDS + 35 μg/ml aldolase (7)	0.401 ± 0.038**	0.579 ± 0.038	78.01 ± 4.51	0.720 ± 0.063	63.66 ± 4.08
		8.088 ± 1.471	16.47 ± 1.46	5.568 ± 1.551	27.36 ± 0.94
		20.157 ± 11.398	5.52 ± 3.05	33.834 ± 16.247	8.98 ± 3.14
10 μM Ca^{2+} + 3 mM caffeine (5)	0.281 ± 0.028**	0.371 ± 0.028	87.82 ± 2.52	0.736 ± 0.085	61.60 ± 5.11
		4.602 ± 0.769	12.18 ± 2.52	4.992 ± 0.825	38.40 ± 5.11

Values are the means ± SE for the number of channels shown in parenthesis. Each channel was studied for 1 min with 2 observations and average value was calculated. One-way analysis of ANOVA was used to test significance between the means of different pairs of data sets. Asterisks indicate statistically significant differences among the 3 groups for native RyR1 (ANOVA, $P<0.01$). Double asterisks indicate statistically significant differences among the 4 groups for purified RyR1 (ANOVA, $P<0.01$).

TABLE II

Table 2. Effects of DIDS binding proteins in the presence of purified CRC and DIDS

	P_o	
Proteins	10 μM Ca^{2+}	10 μM Ca^{2+} + 10 μM DIDS
GAPDH	0.13 ± 0.04	0.17 ± 0.03
Malate dehydrogenase	0.21 ± 0.06	0.27 ± 0.04
Adenylate kinase	0.17 ± 0.07	0.14 ± 0.05
Aldolase	0.19 ± 0.03	0.42 ± 0.05*

The experiments were carried out as described in the legend to Fig. 5. Values are the mean ± SE for 3 independent experiments. *Significantly different between the 2 experimental groups (unpaired *t*-test, $p < 0.05$).