CALCIUM INDICATORS SELECTION GUIDE

Indicator Dye	MW	Ex	Em	Laser	Filter	Kd	FCa/FFree*
Cal-500™	1019.92	388	482	405	DAPI	303 nM	~100 fold
Calbryte™ 520	1090.9	493	515	488	FITC	1.2 µM	~300 fold
Cal-520®	1102.95	493	515	488	FITC	320 nM	~100 fold
Calbryte™-520L	794.88	493	515	488	FITC	91 µM	~300 fold
Calbryte™-520XL	1129.36	493	515	488	FITC	300 µM	~300 fold
Cal-520FF™	1138.92	493	515	488	FITC	9.8 µM	~100 fold
Cal-520N™	1147.96	493	515	488	FITC	90 µM	~100 fold
OG488 BAPTA -1	1258.07	493	522	488	FITC	170 nM	~14 fold
Fluo-8®	1046.93	495	516	488	FITC	389 nM	~200 fold
Fluo-8H™	1074.98	495	516	488	FITC	232 nM	~200 fold
Fluo-8L™	1078.95	495	516	488	FITC	1.9 µM	~200 fold
Fluo-8FF™	1082.91	495	516	488	FITC	10 µM	~200 fold
Fluo-4	1096.95	495	528	488	FITC	345 nM	~100 fold
Cal Green™ 1	1290.96	498	517	488	FITC	190 nM	~14 fold
Fluo-3	1129.85	506	515	488	FITC	390 nM	~100 fold
Rhod-4™	1015.96	523	551	561	TRITC	451 nM	~250 fold
Rhod-2	1123.96	553	577	561	TRITC	570 nM	~100 fold
Rhod-FF	1145.9	553	577	561	TRITC	19 µM	~100 fold
Rhod-5N	1154.92	557	580	561	TRITC	300 µM	~100 fold
Cal-590™	1266.81	574	588	561	Cy3/TRITC	561 nM	~100 fold
Calbryte™ 590	1218.77	581	593	561	Cy3/TRITC	1.4 µM	~300 fold
Calbryte™ 630	1234.84	607	624	561	Texas Red	1.2 µM	~300 fold
Cal-630™	1282.89	609	626	561	Texas Red	792 nM	~100 fold
Cal-670™	1587.99	667	680	640	Cy5	853 nM	~100 fold
Cal-770™	1688.58	758	783	750	Cy7	850 nM	~100 fold

* FCa/FFree = Increase in fluorescence intensity of calcium bound indicator relative to its calcium free indicator form.

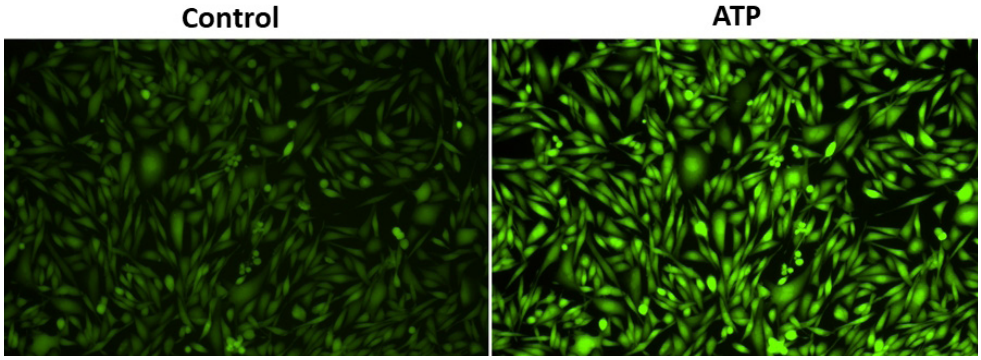

Figure 1. Response of endogenous P2Y receptor to ATP in CHO-K cells. CHO-K cells were seeded overnight at 40,000 cells per 100 µL per well in a 96-well black wall/clear bottom costar plate. 100 µl of 4 µM Cal 520 ™ AM in HHBS with 1 mM probenecid were added into the wells, and the cells were incubated at 37 °C for 1 hour. The dye loading mediums were replaced with 100 µl HHBS and 1 mM probenecid , then imaged with a fluorescence microscope (Olympus IX71) using FITC channel before and after adding 50 µl of 300 µM ATP .

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