

## APPENDIX

### Reagents and buffers

#### Carbonate buffer (coating buffer)

$\text{Na}_2\text{CO}_3$	1.6	g
$\text{NaHCO}_3$	2.9	g
$\text{NaN}_3$	0.2	g

Dissolve reagents in 500 ml distilled water and adjust pH to 9.5 with 1N HCl or 1N NaOH, and then fill distilled water up to 1,000 ml. Store at 4°C.

#### Phosphate buffer saline

$\text{NaH}_2\text{PO}_4$ (anhydrous)	0.23	g
$\text{Na}_2\text{HPO}_4$ (anhydrous)	1.15	g
NaCl	9.00	g

Dissolve reagents in 500 ml distilled water and adjust pH to 7.2-7.4 with 1N HCl or 1N NaOH, and then fill distilled water up to 1,000 ml. Store at 4°C.

#### PBS-Tween

Phosphate buffer saline	1,000	ml
Tween 20	500	$\mu\text{l}$

Mix well and store at 4°C.

**5% BSA**

Phosphate buffer saline	100	ml
BSA	5	g

Mix well and store at 4°C.

**10x TBE buffer**

Tris Base	108	g
Boric acid	55	g
0.5 M EDTA pH 8.0	40	ml

Dissolved reagents in 500 ml distilled water and then fill distilled water up to 1,000 ml

Store at room temperature.

**6x loading buffer**

Formamide	2700	μl
10x TBE	150	μl
Xylene cyanol	0.6	mg
Bromophenol blue	0.6	mg

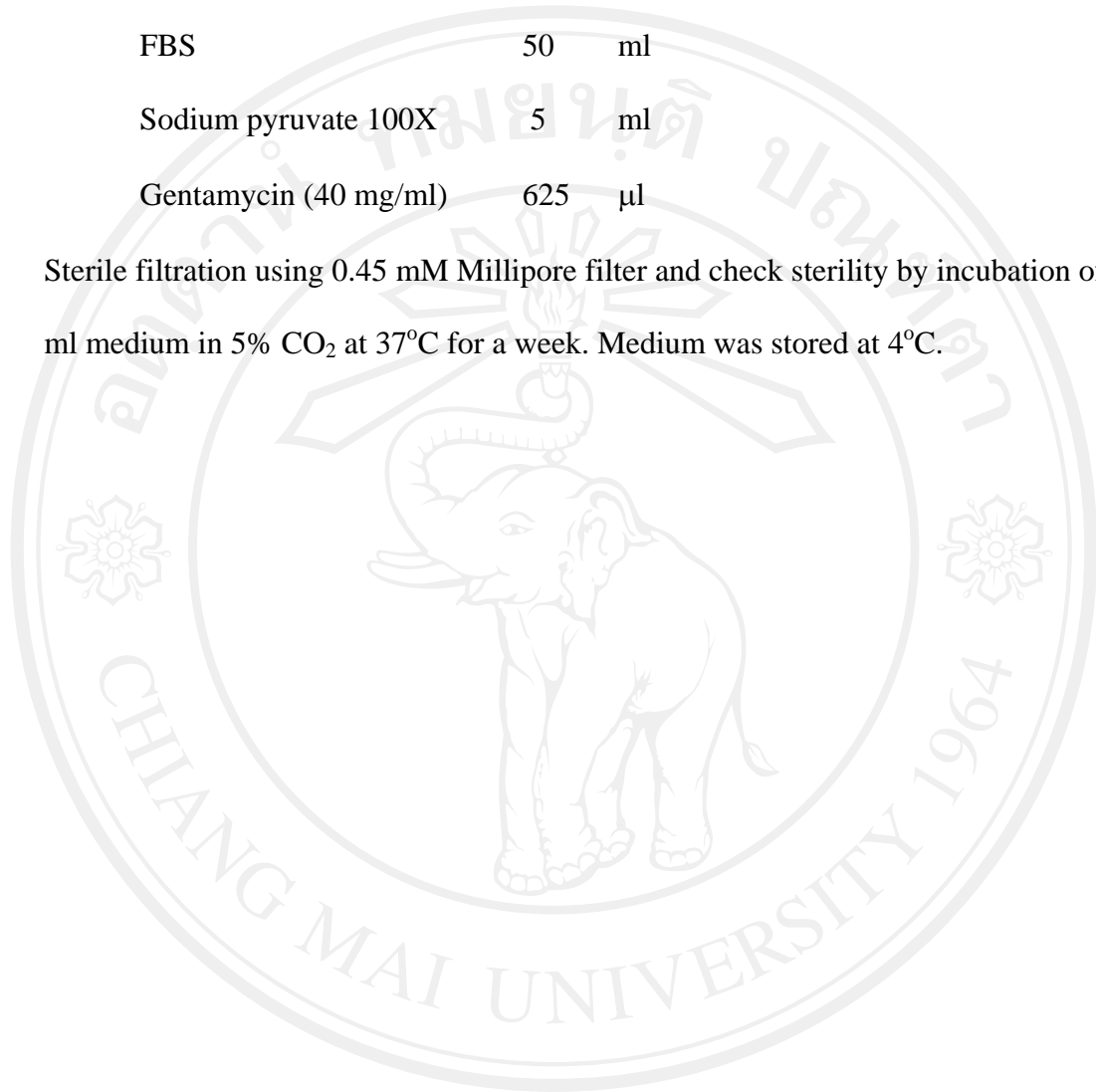
Distilled water	150	μl
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Store at 4°C.

**RPMI-10**

RPMI medium	500	ml
FBS	50	ml
Sodium pyruvate 100X	5	ml
Gentamycin (40 mg/ml)	625	$\mu$ l

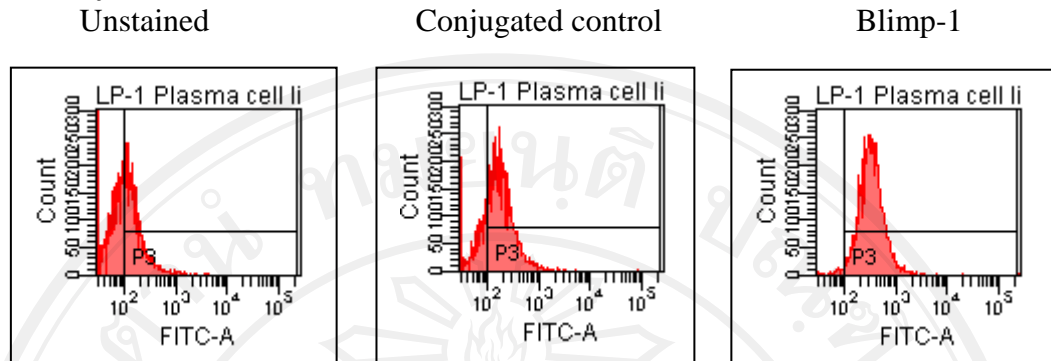
Sterile filtration using 0.45  $\mu$ m Millipore filter and check sterility by incubation of 2 ml medium in 5% CO<sub>2</sub> at 37°C for a week. Medium was stored at 4°C.



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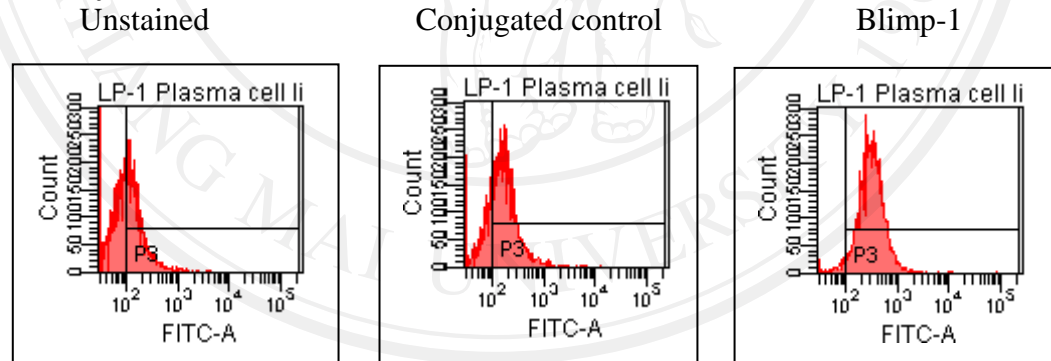
### Titration of FITC-conjugated Antibody

#### Antibody 1:100



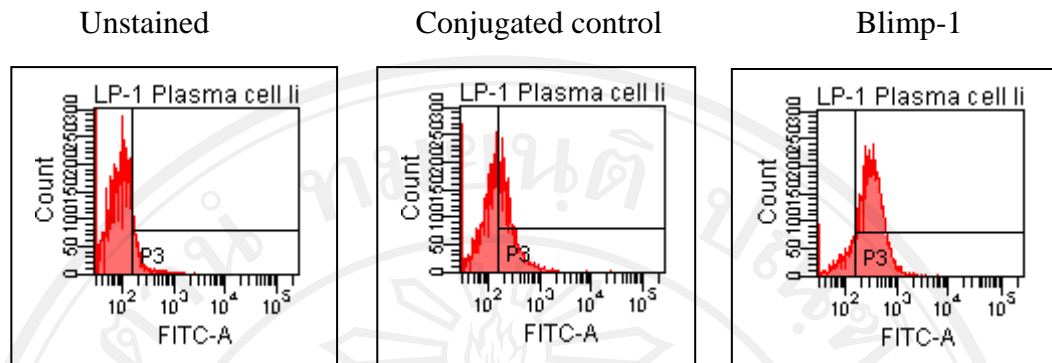
	Unstained	Conjugated control	Blimp-1
% Cell	21.5	50.1	92.7
FITC Mean	251	301	376
FITC Median	131	229	322

#### Antibody 1:200



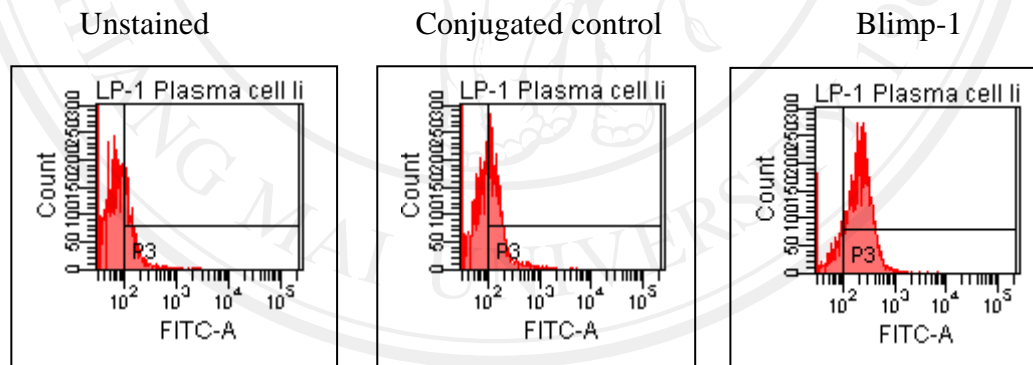
	Unstained	Conjugated control	Blimp-1
% Cell	21.5	47.5	90.1
FITC Mean	251	301	376
FITC Median	131	229	322

### Comparison of permeabilizing agent Cold Methanol



	Unstained	Conjugated control	Blimp-1
% Cell	9.2	41.1	82.4
FITC Mean	251	301	376
FITC Median	131	229	322

### Triton x 100



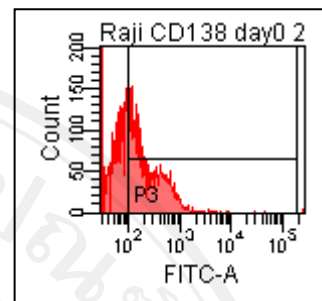
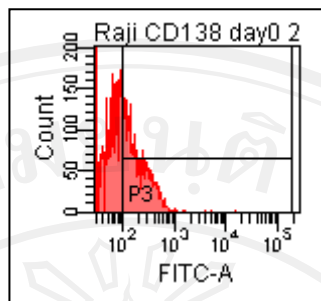
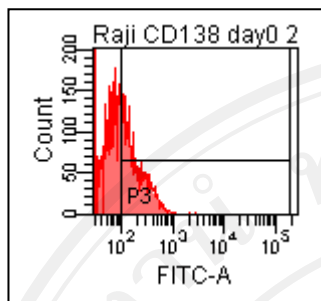
	Unstained	Conjugated control	Blimp-1
% Cell	18.9	39.0	80.8
FITC Mean	178	188	246
FITC Median	131	140	215

**Untstimulated Raji cell CD138 day 0**

Unstained

Conjugated control

CD 138



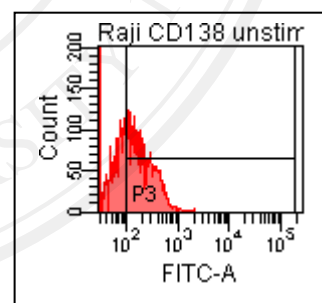
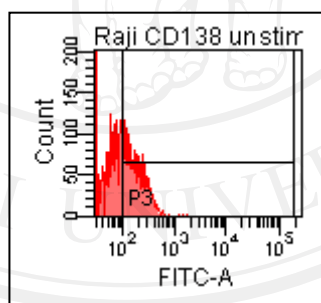
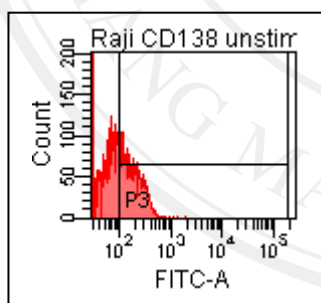
	Unstained	Conjugated control	CD 138
% Cell	39.7	41.0	51.7
FITC Mean	210	225	347
FITC Median	158	166	190

**Untstimulated Raji cell CD138 day 3**

Unstained

Conjugated control

CD 138



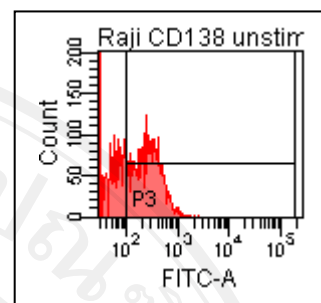
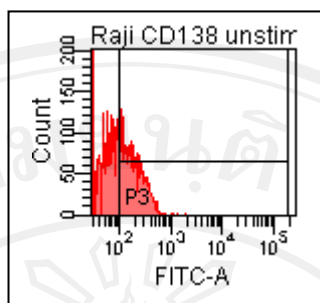
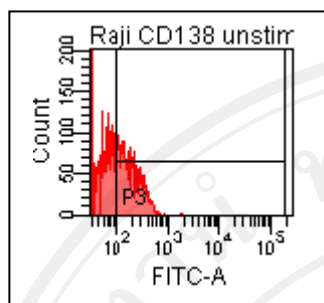
	Unstained	Conjugated control	CD 138
% Cell	42.2	43.4	57.6
FITC Mean	193	193	245
FITC Median	166	164	188

**Unstimulated Raji cell CD138 day 6**

Unstained

Conjugated control

CD 138



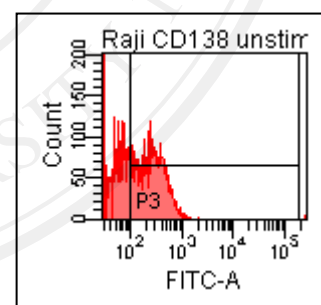
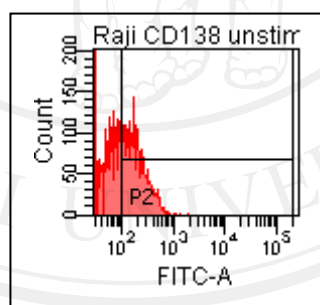
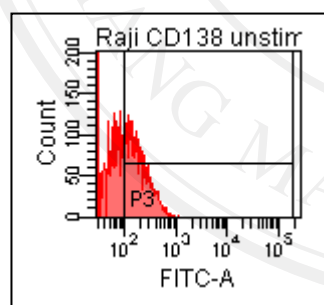
	Unstained	Conjugated control	CD 138
% Cell	38.2	41.5	56.4
FITC Mean	203	202	289
FITC Median	170	169	255

**Unstimulated Raji cell CD138 day 9**

Unstained

Conjugated control

CD 138



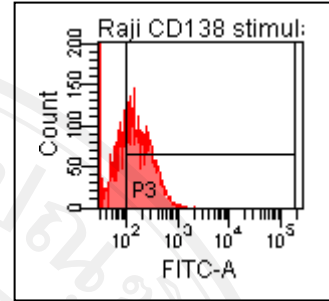
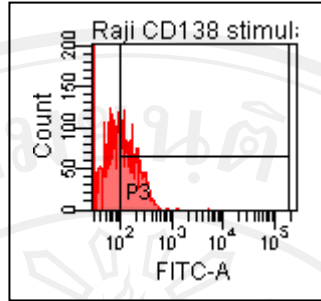
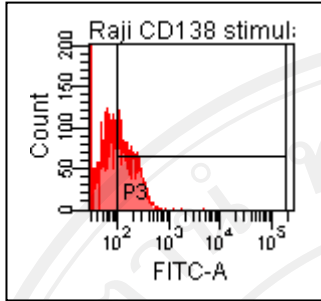
	Unstained	Conjugated control	CD 138
% Cell	44.9	46.3	52.5
FITC Mean	204	215	294
FITC Median	164	176	251

**Stimulated Raji cell CD138 day 3**

Unstained

Conjugated control

CD 138



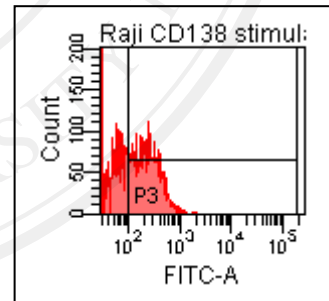
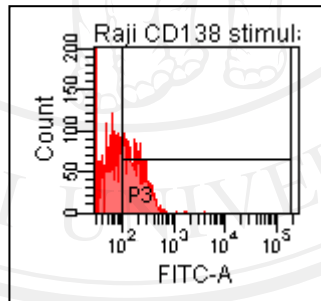
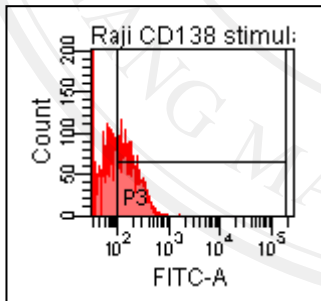
	Unstained	Conjugated control	CD 138
% Cell	41.8	42.4	52.4
FITC Mean	192	189	132
FITC Median	164	160	190

**Stimulated Raji cell CD138 day 6**

Unstained

Conjugated control

CD 138



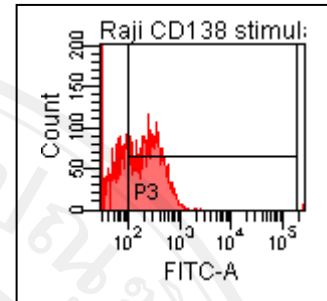
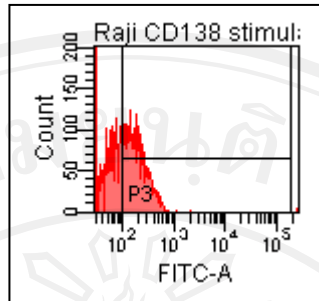
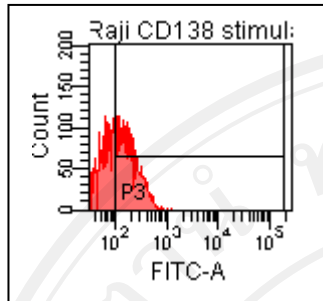
	Unstained	Conjugated control	CD 138
% Cell	40.3	40.4	54.7
FITC Mean	195	200	263
FITC Median	166	172	219

**Stimulated Raji cell CD138 day 9**

Unstained

Conjugated control

CD 138



	Unstained	Conjugated control	CD 138
% Cell	46.1	50.0	60.4
FITC Mean	202	204	305
FITC Median	169	172	260

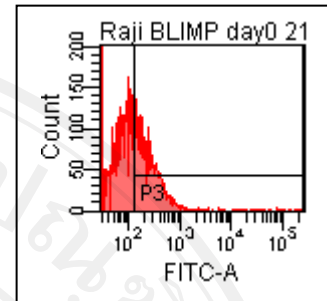
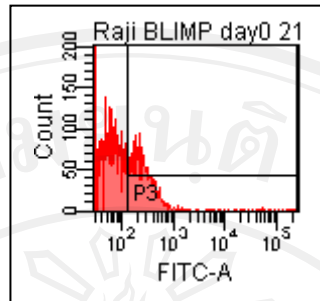
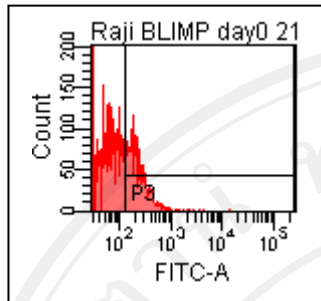
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**Unstimulated Raji cell Blimp-1 day 0**

Unstained

Conjugated control

Blimp-1



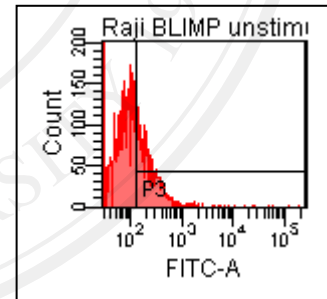
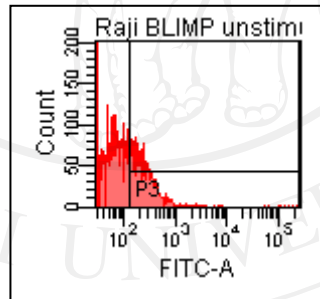
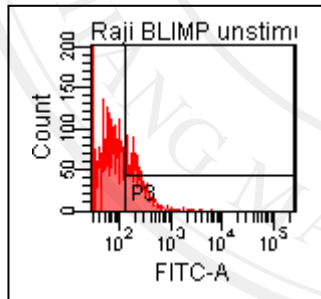
	Unstained	Conjugated control	Blimp-1
% Cell	28.2	30.4	40.6
FITC Mean	253	2015	1437
FITC Median	198	233	223

**Unstimulated Raji cell Blimp-1 day 3**

Unstained

Conjugated control

Blimp-1



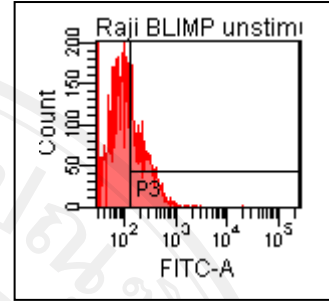
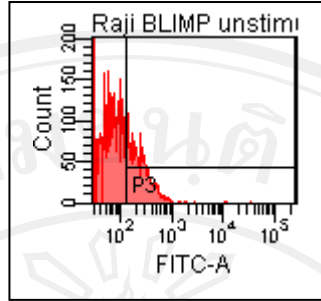
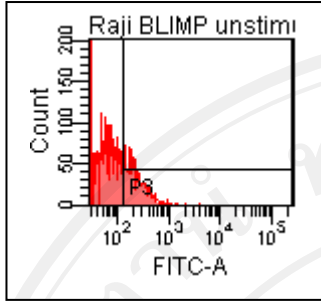
	Unstained	Conjugated control	Blimp-1
% Cell	26.3	31.5	32.2
FITC Mean	269	915	631
FITC Median	202	221	198

**Unstimulated Raji cell Blimp-1 day 6**

Unstained

Conjugated control

Blimp-1



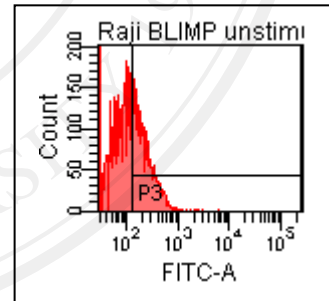
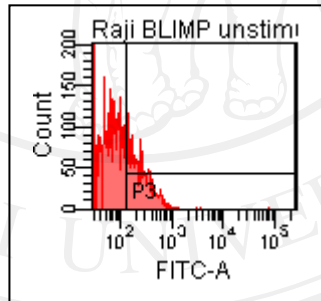
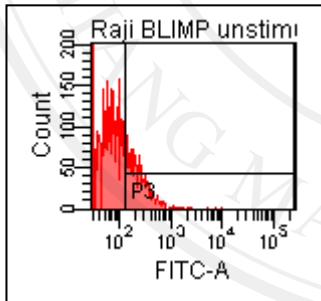
	Unstained	Conjugated control	Blimp-1
% Cell	24.4	29.1	32.7
FITC Mean	254	285	271
FITC Median	198	211	213

**Unstimulated Raji cell Blimp-1 day 9**

Unstained

Conjugated control

Blimp-1



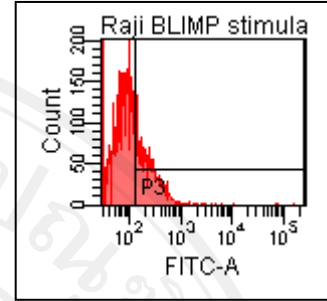
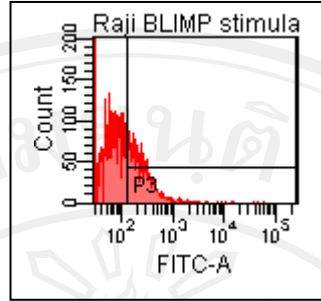
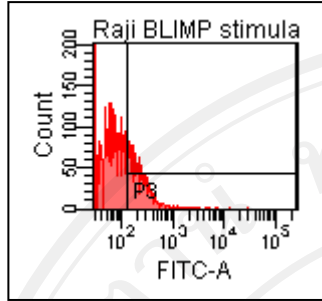
	Unstained	Conjugated control	Blimp-1
% Cell	22.6	27.2	37.8
FITC Mean	272	302	245
FITC Median	206	216	197

**Stimulated Raji cell Blimp-1 day 3**

Unstained

Conjugated control

Blimp-1



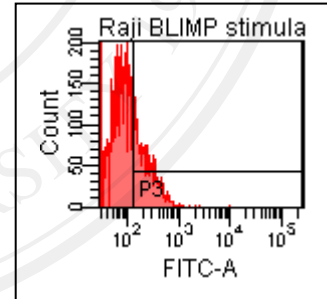
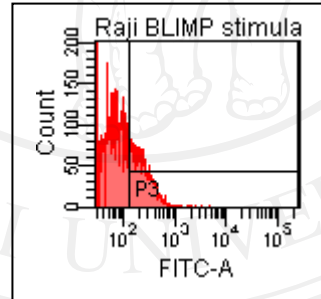
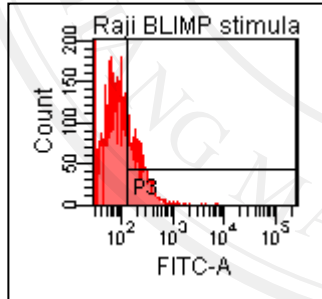
	Unstained	Conjugated control	Blimp-1
% Cell	24.2	32.5	28.5
FITC Mean	313	400	522
FITC Median	200	213	209

**Stimulated Raji cell Blimp-1 day 6**

Unstained

Conjugated control

Blimp-1



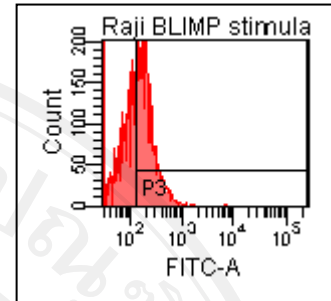
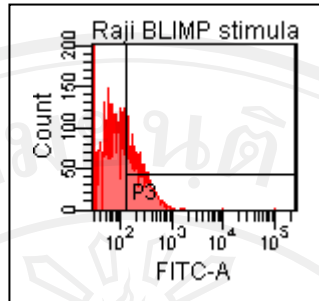
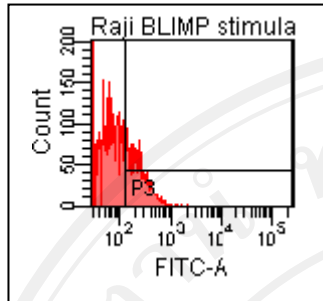
	Unstained	Conjugated control	Blimp-1
% Cell	25.2	25.1	27.8
FITC Mean	255	254	256
FITC Median	198	209	206

**Stimulated Raji cell Blimp-1 day 9**

Unstained

Conjugated control

Blimp-1



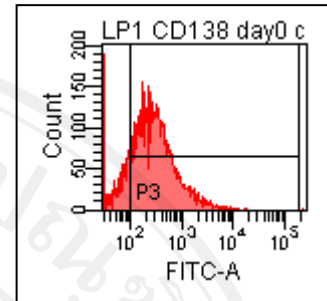
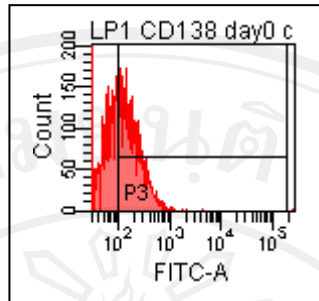
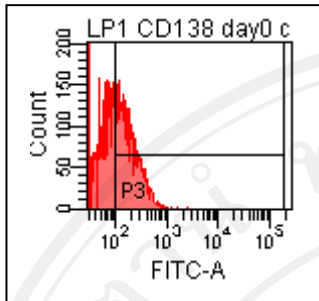
	Unstained	Conjugated control	Blimp-1
% Cell	24.9	27.8	54.3
FITC Mean	246	316	228
FITC Median	207	209	189

**LP-1 cell CD138 day 0**

Unstained

Conjugated control

CD 138



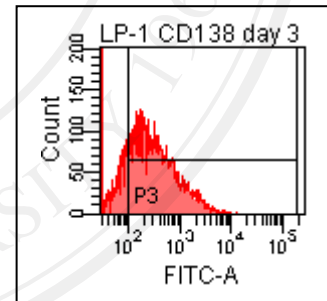
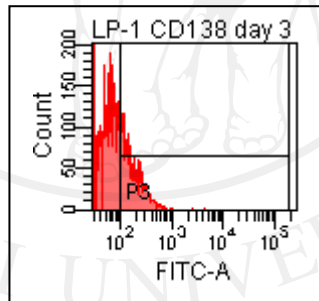
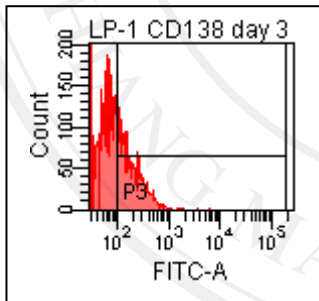
	Unstained	Conjugated control	CD 138
% Cell	45.9	50.6	83.6
FITC Mean	202	207	511
FITC Median	163	166	284

**LP-1 cell CD138 day 3**

Unstained

Conjugated control

CD 138



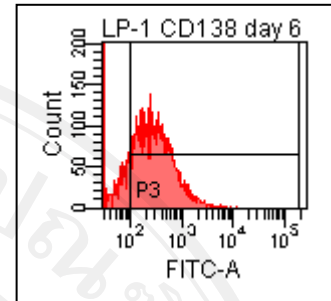
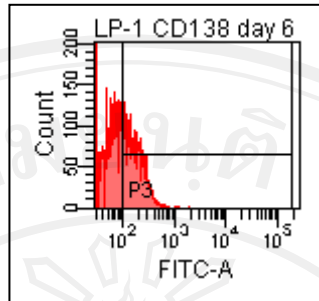
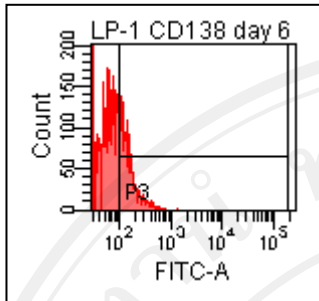
	Unstained	Conjugated control	CD 138
% Cell	31.4	25.3	74.4
FITC Mean	215	185	588
FITC Median	161	143	303

**LP-1 cell CD138 day 6**

Unstained

Conjugated control

CD 138



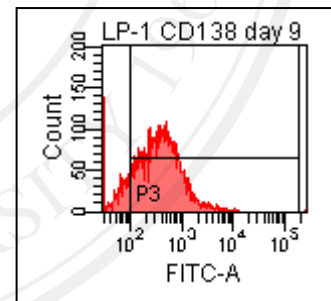
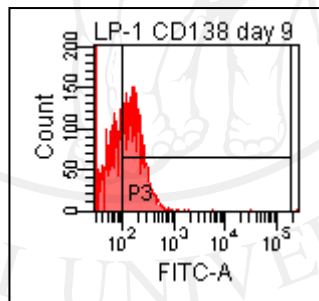
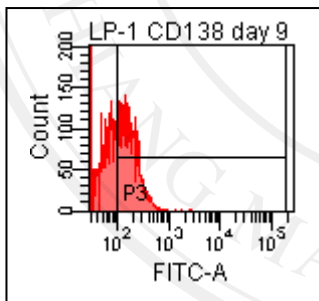
	Unstained	Conjugated control	CD 138
% Cell	25.7	36.8	81.4
FITC Mean	155	184	449
FITC Median	128	158	289

**LP-1 cell CD138 day 9**

Unstained

Conjugated control

CD 138



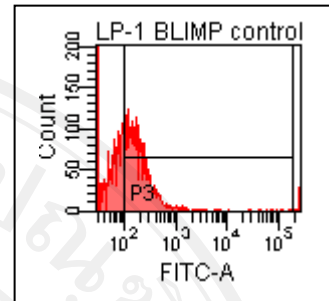
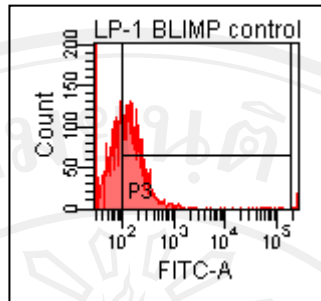
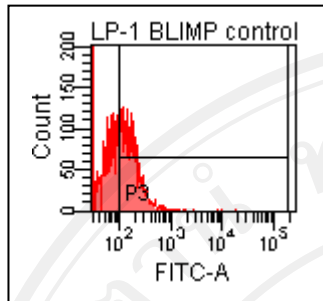
	Unstained	Conjugated control	CD 138
% Cell	46.4	51.2	86.1
FITC Mean	186	200	595
FITC Median	159	162	382

**LP-1 cell BLIMP-1 day 0**

Unstained

Conjugated control

Blimp-1



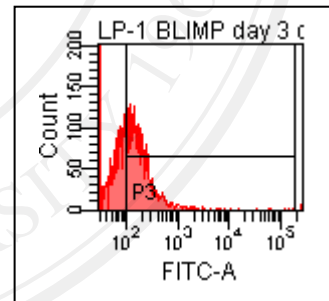
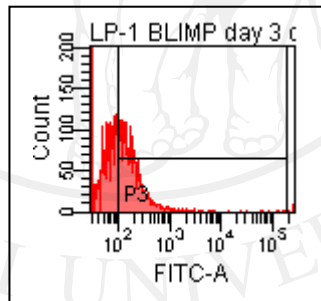
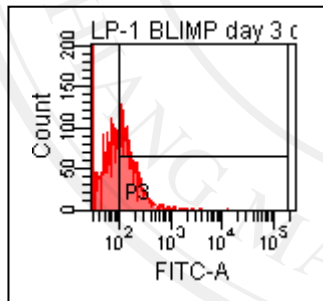
	Unstained	Conjugated control	CD 138
% Cell	48.5	53.8	57.8
FITC Mean	199	658	666
FITC Median	153	161	166

**LP-1 cell BLIMP-1 day 3**

Unstained

Conjugated control

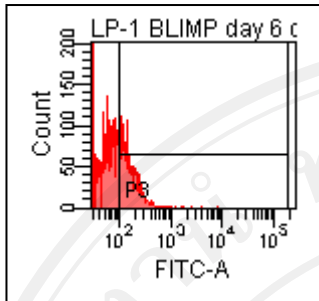
Blimp-1



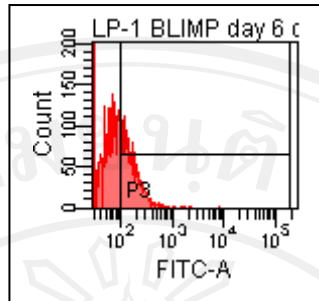
	Unstained	Conjugated control	Blimp-1
% Cell	44.1	48.6	56.5
FITC Mean	205	659	458
FITC Median	145	158	161

**LP-1 cell BLIMP-1 day 6**

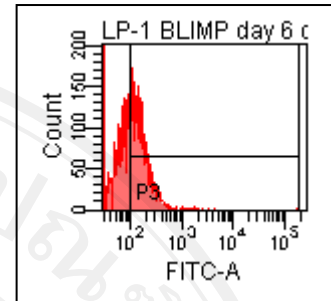
Unstained



Conjugated control



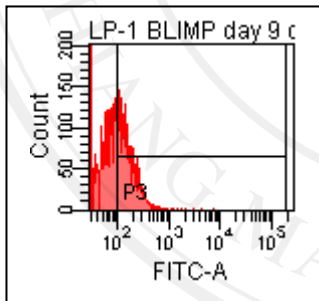
Blimp-1



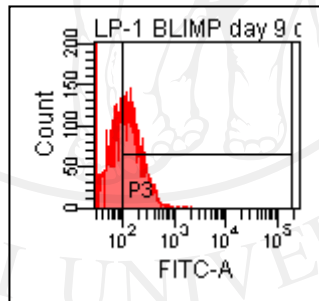
	Unstained	Conjugated control	Blimp-1
% Cell	32.5	33.8	50.4
FITC Mean	177	178	243
FITC Median	140	142	143

**LP-1 cell BLIMP-1 day 9**

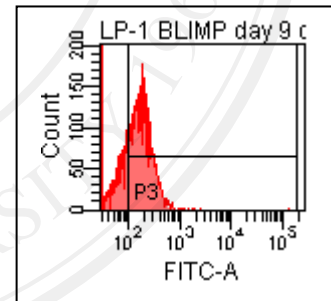
Unstained



Conjugated control



Blimp-1



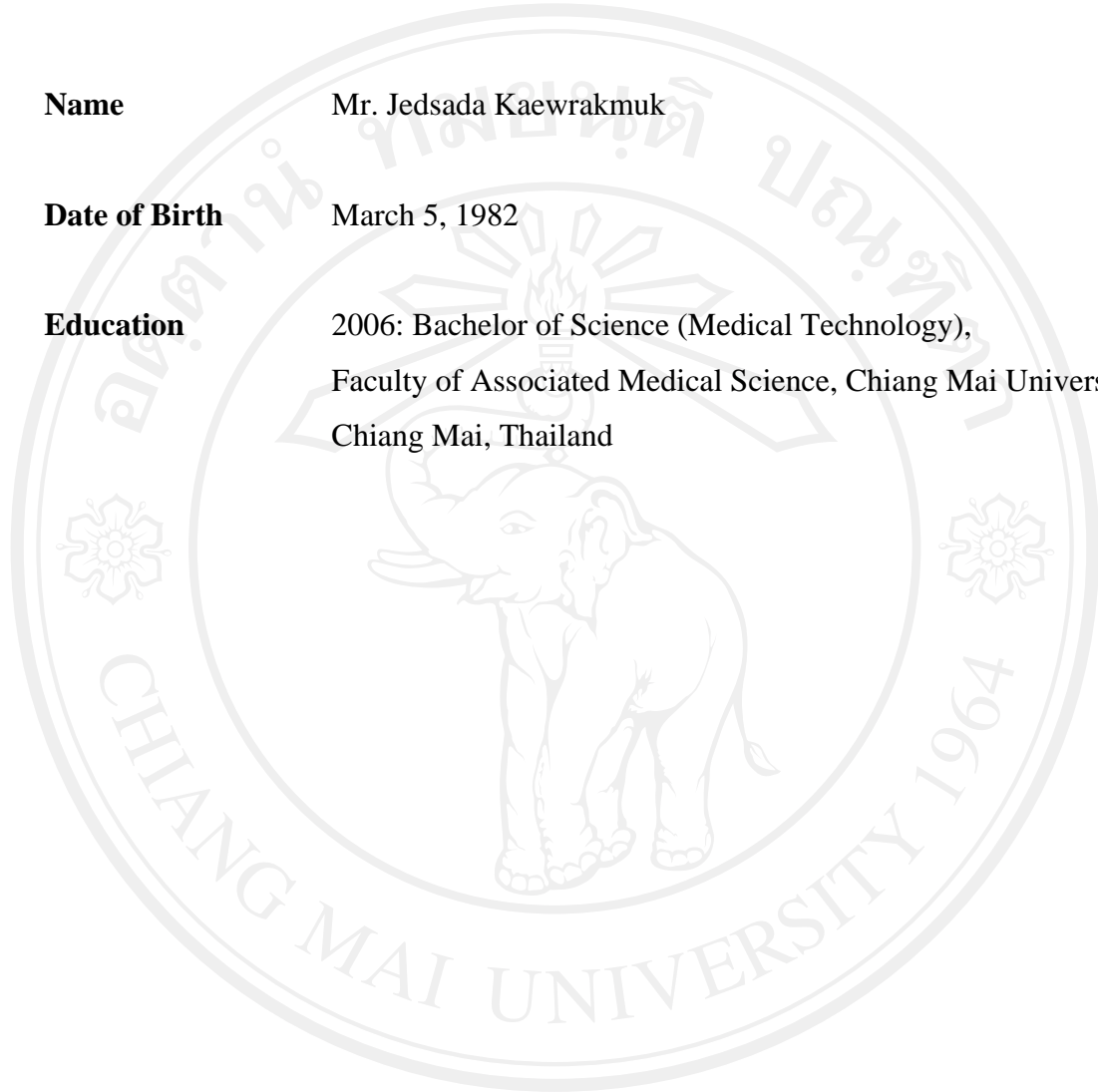
	Unstained	Conjugated control	Blimp-1
% Cell	41.1	51.7	70.5
FITC Mean	179	187	241
FITC Median	142	153	178

## CURRICULUM VITAE

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