

マイクロSSPの解析

株式会社ベリタス

日本人フィルタの設定



以下の手順で設定します

Utilities > Molecular Product Configuration > Molecular Analysis Configuration







• TOP画面からSSPのアイコンをクリックします

	usio	n 🛛 🗍	Home		
Product	Catalogs	Last Updated	# of Sessions	# of Tests	Recent Session
LABType	0		0	0	
SSP	11	2017/06/16	0 (0	
LABScreen	1	2017/06/07	0	0	
= LAT	0		0	0	
FlowPRA	0		0	0	
LCT	0		0	0	

画面左上の「Batch Entry」のボタンをクリックします。

Analyze Data Reports Data Sample Patient Info Pro	file Utilities Help Exil	LAT L	a 🍾				¥	20
	HLA F	usio	n [∞]	Micro S	SP			
Batch Entry	Locus Tone	Cataloga	Last Hedated	H of Sessions	H of Tosta	Bacart Session		Cade
include Imported	Cocos ripe	Conaroga		in or Sessions	nor reas	Hecerk Jession	1	NMDP
C:VOLI FUSIONVdataVsession			2017/06/16	0	0			Local
CSV Ele Name	1 100		2017/06/16	0	0			e Down
	A. B. C. DRB1, DRB345, DQB1	1	2017/06/16	0	0		1	Configuration
	A, B, DRB1, DRB345	1	2017/06/16	0	0			
	A, B, DRB1, DRB345, DQB1	1	2017/06/16	0	0			Cro Alele Fred
	8	1	2017/06/16	0	0			Number of Fall
	c	1	2017/06/16	0	0			9
	DRB1, DRB345	1	2017/06/16	0	0			Computer Assign
	- Product Docume	ints-		1		22	1.047	
	Catalog	Nomencl Date	ature IMGT Versi	Catalog on Descrip) ition	Worksheet (8.5x11)		Worksheet (11x17)
	SSP1A 006 11	January 20	3.27.0	Mcro SS	P+HLA Clas			
	SSP1AB 006 01	January 20	3 27.0	Micro SS	P+HLA Clas			
	SSP1L 010 07	January 20	3.27.0	Micro SS	P.Generic			
	SSPJPN 007 15	January 20	3.27.0	More SS	P. Japanese			
	SSPABDR 010 07	January 20	3.27.0	Micro SSI	P+HLA Class			
	CCD141 07 076 76	L		14	0.0			

マイクロSSPの解析



以下の項目(*がついている箇所)を入力します。

HLA Fusion**									
inalyze Data Reports Data Sample Patient Info Profile Utilities Help			\$?0		*ゲ もで	ルイメージをう きます	選択することで	、写真を]	取り込むこと
Batch Name: Micro SSP.20170616161230	Bach Date trine Batches Test Date* Sar	Find Find Find Sample Date	Semple Patent	1D First Name	Last Name	Ethnicity Patient Donor	/ Gel Image		
DAB 1 DAB 1 DAB345 DAB 1 DAB345,00B 1 DAB 1 DAB345,00B 1	tch Name: Micro SSP_20170616	161230	_	Batch Date Existing Batch	e: 2016/1 es:	2/18 🛛 🕶 ~ 2017/	06/16 <u></u> ▼ ▼ Find	Sample	Sample
入力例	ABC,DR. SSPJPN_00	07_15 💌	Session Micro SSP_20170616	161230_SSPJPN_007_15		Test Date" 2017年06月16日	v test	Date	Source
					<u> </u>				_
①測定した Kit の Locus、ナ グファイルを選択します。	カタロ フィ も下	Sesion、Te されます。 可能です。	st Date は 自分で入力	自動で入 すること	③ を	Sample Na クリックし	ame を入力し ます。	∠、Nex [™]	t
							3		
						Batch	Import New Batch Sav	Next >	Close





解析画面に移行し、泳動結果を入力します。





マイクロSSPの解析



バンドパターンを入力し、 Analyze をクリックすると解析結果が表示されます。





- Well 情報の確認
 - 黒枠内、各ウェルにカーソルを合わせるとWell情報、Base Pairサイズの確認ができます



- Well Infoをクリックし、確認するウェルを選択

es Help Exit		
550 1 👢 LAT LCT 🔭	\$? O	
ar comy snon Me		SA RA #False 1 1 Force 1 Rxn Reset Rxn Max
Well 1H(1) - Rec Site: 114-114+[15	j0-150 + 165167]	
A*01:01:01:01, A*01:01:01:02N, A*01:01:01 A*01:01:11, A*01:01:13, A*01:01:14, A*01:0 A*01:01:34, A*01:01:35, A*01:01:05, A*01:01 A*01:01:80, A*01:01:03, A*01:01:05, A*01:01 A*01:01:80, A*01:01:01; A*01:01:02, A*01: A*01:23, A*01:29, A*01:01:31, A*01:32, A*01: A*01:23, A*01:29, A*01:01:59, A*01:60, A*01: A*01:20, A*01:134, A*01:1165, A*01:66, A*0 A*01:111, A*01:112, A*01:1145, A*01:114, A*	103, A*01:01:01:04, A*01:01:01:05, A*01:01:01:06, A*01:01:01:07, A*01:01:01:08, A*01:01:01:09, A*01:01:1 1:15, A*01:01:16, A*01:01:17, A*01:01:18, A*01:01:19, A*01:01:20, A*01:01:21, A*01:01:22, A*01:01:23, A* 1:37, A*01:01:381, A*01:01:39, A*01:01:40, A*01:01:41, A*01:01:42, A*01:01:165, A*01:01:165, A*01:01:145, A*01:01:145, A*01:01:165, A*01:01:165, A*01:01:165, A*01:01:165, A*01:01:165, A*01:01:165, A*01:01:165, A*01:01:165, A*01:01:165, A*01:01:05, A*01:01:145, A*01:01:30, 32, A*01:30, A*01:01:05, A*01:01:01:05, A*01:01:05, A*01:01:165, A*01:01:05, A*01:01:05, A*01:01:05, A*01:01:05, A*01:01:05, A*01:01:05, A*01:01:05, A*01:01:05, A*01:01:05, A*01:05, A*	1:10, A'01:01:02, A'01:01:03, A'01:01:04, A'01:01:05, A'01:01:06, A'01:01:07, A'01:01:08, A'01:01:09, A'01:01:10, 01:01:24, A'01:01:25, A'01:01:26, A'01:01:28, A'01:01:29, A'01:01:30, A'01:01:31, A'01:01:32, A'01:01:33, V01:01:46, A'01:01:172, A'01:01:37, A'01:01:05, A'01:01:52, A'01:01:52, A'01:01:52, A'01:01:52, A'01:01:52, A'01:01:52, A'01:01:52, A'01:01:52, A'01:01:53, A'01:01:54, A'01:01:56, A'01:01:52, A'01:01:52, A'01:01:52, A'01:01:52, A'01:01:53, A'01:01:54, A'01:01:56, A'01:01:79, A'01:13, A'01:14, A'01:152, A'01:173, A'01:120, A'01:20, A'01:22, A'01:23, A'01:24, A'01:25, A'01:01:56, A'01:01:50, A'01:01:52, A'01:252, A'01:253, A'01:25, A'01:27N, A'01:46, A'01:46, A'01:164, A'01:165, A'01:52, A'01:252, A'01:252, A'01:253, A'01:56, A'01:56N, A'01:46, A'01:103, A'01:110, A'01:106, A'01:106, A'01:106, A'01:106, A'01:100, A'01:110, A'01:101, A'01:01:56, A'01:56N, A'01:56, A'01:56N, A'01:56, A'01:56N, A'01:56, A'01:56N, A'01:127, A'01:128, A'01:125, A'01:127N, A'01:136, A'01:128, A'01:128, A'01:110, A'01:110, A'01:106, A'01:1106, A'0
A*01:165, A*01:166, A*01:168, A*01:168, A*01:169, A* A*01:193, A*01:194, A*01:195, A*01:197, A* A*01:222, A*01:223, A*01:224, A*01:225, A*	01:170, A'01:171, A'01:172, A'01:173, A'01:174, A'01:175, A'01:176, A'01:176, A'01:178N, A'01:178N, A'01:178N, A'01:208Q, A'01:01:198, A'01:209, A'01:203, A'01:203, A'01:203, A'01:208Q, A'0 01:198, A'01:199, A'01:201, A'01:202, A'01:203, A'01:204, A'01:205, A'01:207, A'01:208Q, A'0 01:226, A'01:227, A'01:228Q, A'01:229, A'01:230, A'01:231, A'01:232, A'01:233, A'01:234, A'01:235, A'0	'01:180, A'01:181, A'01:182, A'01:183, A'01:184, A'01:185, A'01:186N, A'01:187, A'01:188, A'01:189, A'01:199, A Niz29, A'01:20, A'01:21, A'01:22, A'01:213, A'01:215, A'01:216, A'01:217, A'01:218, A'01:219, A'01:220, A'01:221, 1:237, A'01:238, A'01:240N, A'03:18



アレル検索
 例)B*54:04を調べる場合・・・

B*54	4:04	Find A	Allele																					
		2	5	16	22	31	32	33	36	37	38	54	56	64	67	74	78	83	88	91	94	1	3	4
		1G	1D	2A	3C	4B	4A	SH	SE	5D	5C	70	7A	8A	9F	10G	100	11F	11A	12F	12C	1H	1F	1
	Cross Loci			#	#		#	#	#	ŧ	#	#		#	#		#				1			#
	Sample Rxn	x	x	x	x	x	x	x	x	x	x	x	х	x	x	x	x	x	x	х	x			
	B*54:04			x			1	1	x	x	x	1	1		1		177	100	-					
	B*54:01:01			x		1	1	Ľ.	x	X	x	Ľ			1	ľ				l.	1		1	Ľ
	B*54:01:02			x	1				x	x	x										<u>[</u>]			
	B*54:01:03			x					x	x	x													
	B*54:01:04			x					x	x	x		1				123 1				1			
	B*54:01:05			x			1	Ľ.	x	X	x	Ľ			1	ľ.			1	i.				Ľ
	B*54:01:06			X					x	X	x						1				1			
	B*54:01:07			x			1		x		x													
	B*54:07			X	1				x	X	x		1				32				37			
	B*54:08N			x		N	±,	/ . 1 4	۵ <i>۱</i> +	18	— rt	- 1 -												
	B*54:10			x	1		月)	(:作	夬14	,7J)	又儿	シレノ		_	\mathbf{A}									
	B*54:11			x			黒)	(:プ	レ	ルこ	ごと	のビ	<u> </u>	ズ反	え応									
	B*54:12			x	i –			•					-											
	B*54:13			x							_			_										
	B*54:15			x			1 G	DJ	らが	「反」	応し	.71	いる	. م	Δ*	02:1	10.	Δ*	02:	101	:01	(略)	مل ا



• フィルターの切り替え

- Configから変更可能です。

🚯 HLA Fi	Jsion™	И										
Analyze [Data	Report	ts Dat	ta Sa	mple	Patien	t Info	Profile	Utilit	ies Help) Exit	
1		3 2		R			_ ∢	SSP SSP	M	550	š 🛴 💷 💝 🧼 🔅 🔅	
<< Si	ımmar	у 🔍	< te	st					- D	> 问 🚽		
Sample ID): tes	st							- Cle	ar Co		
Standard	E-Gel	96 (V)	E-Gel	96 (H)	Centip	ede				Rxn	NMDP Code	
		н	G	F	E	D	с	в	A		No Code	
	_	_	_	_	_		_				Local Code 84 70 95 1 2 3 4 6 7	8 9
01		1	1	1	1	8	1	1	1	•	P Grouping	1A 2H
	_										g grouping	
02			8						1		Cross Code(A,B,C,DRB1,DRB345,DQ)	
											Cross Code(DP)	
03	_		8						1		Bw4/Bw6 in Serology	
											Enable KIR Liagand	
04									1		Demographic/Rare Allele Groups CWD TDX 3,27.0	
											Possible Allele Code Condense ver1 Japanese 2017 Jan GE>0.01%	
05	_								1			
											A*24:02:01:08 X	
06									1		A*24:02:01:10 X	
											A*24:02:02 X	
07		1	8	1	1	8	1	8	1		A*24:02:03Q X	
								_			A*24:02:04 X	
08		1	1	1	1	1	1	1	8		A*24:02:03 A	
										•	m	
09		1	1	1	1	1	8	1	1			
00										Pairo	Possi	ble Allele Coc
10		1	1	1	1	1	1	1	1	Local	Demographic Data [ver1_Japanese_2017_Jan_GF>0.01%]	-XX1 A*31:X0 -XX2 A*31-08
10											A*31	:XX2 A*33:YI
11	_	1	1	1	1	1	1	1	1	Group	1: frequent on both alleles A*31 XX1:	:XX2 A*36:03 =:24:02/24:03/
11									<u> </u>	A*24:	02:01:01 A*31:01:02:01(G1) XX2:	=:31:01/31:02
42			1		1	1	1			A*24:	04 A*31:01:02:01(G1)	N:=:21/53
12										A*24: A*24:	08 A*31:01:02:01(G1) B*07 20 A*31:01:02:01(G1)	XX5 B*07:X
View Gel	A	d New	Sample		Analyze	e Combi	ned	Rean	alyze		B*0/ XX5:	=:07:02/07:07/
										Group	2: frequent on one allele XXX6:	=:07:02/07:07/
										A*24:	02:01:01 A*31:01:02:02(G2)	27.20/27:40/
										A*24:	02:01:01 A*31:01:02:03N(G2)	:XX9 C*07:X2
										A 24.		



• 機能紹介(その他一覧)

操作ボタン₽	操作内容。
<i>a</i> 2	ID を元に関連データの検索をします。↩
sa .	解析済みデータを並べて比較します。。
	Sample 名が表示されています。検体が複数ある場合▶で検体
	の変更ができます↔
· · · · · · · · · · · · · · · · · · ·	使用したゲルによって変更が可能です。通常は Standard をお
Standard E-Gèl 95 (V) E-Gel 95 (H) Centipede 47	使いください。↩
View Gel	ゲルイメージを取り込み済みの場合、イメージを参照します。。
Add New Sample	新規作成↔
Analyze Combined	同一 sampleID の検体で比較ができます。。
	再解析します。
Reanalyze	ります。。
Clear 43	日付の入力、クリアができます。。
0.6	Demographic/Rare Allele Group からフィルターの変更ができま
Contrig 42	ġ_o ₽
Show Me	Pattern Display form を開きます。。
الله الم	Sample information を開きます。。
Find Allele	アリルとウェルの反応性を表示させます。。
a 🗐	Product Notes を表示します。。
#False 1 💽 🕫	許容する False 反応の数を 1~4 で設定できます。。
Rxn Reset	Find Allele の検索結果をリセットします。 ↔
Max / Min +3	RXN,□Well-Info を一覧/縮小表示させます。





Report→MicroSSP→Custom SSP Reportをク リックします

HLA Fusio	on™		
Analyze Dat	ta Reports Data Sample Patie	ıt Info Profile Utilities Help Exit	
() (ه ۲۰ 🔜 🗛 🖳 ۲۰	🖳 🚓 55P 📈 550 🐩 🜄 LAT LET 🦙	
Patient	Generic Typing LABType Micro	SP Generic Antibody LABScreen LAT LCT FlowPRA Specialty Statistical Miscellaneous My Favorite Tools	
Patient or Donor ID:	*	Ustom SSP Report Records Patient Info Close	
Session:	*	PatientID ASC Pa	
Batch:	*	SampleID DESC SampleID ASC View Report Export Report Customize Report	
Sample ID:	* *	CatalogID Report Options LocusType Name: Custom SSP Report	
	.	WellPosition	
Specificity:		Setup	J
Test Date:	. ~ .	Sessions Samples	
Session	2017/06/08 - ~ 2017/06/22 -	Includ V Session V Test Date V Catalog ID VV Nom Date V IMGT V Product Type V L	Jser 🛛
Date:	Include all records for samples	🗉 🧧 Micro SSP_20170616161230_SSPJPN_007_15 2017年06月16. SSPJPN_007_15 January 2017 3.27.0 Micro SSP 1	
	Include all combined samples		
	Reset Find		
Local ID:	*		





Setupをクリックし、レポートの出力条件を設 定します。

Type or enter the report name*: MSSP		Approved By:			Date:	
Approved By	Assigned Allele Code	Patient ID: Ethnicity: Blood Type: Statue	Rh:	DOB:	Name Gender: UNK Category:	
Patient ID, Name (REQUIRED for this group) Project Type SSN Character Character	V Possible Allele Code 1 Allele V Assigned Serology	Address Email: Spouse Name: Emergency Contact: Donor Center ID: From Other Facility:	NO	Phone:	Mobile: Spouse Blood Type: Emergency Phone Hospitak	Fax: Employer:
Evaluate, Societation (Constraint) Disease, Status, Blood, Transplant Type Address, Phone, Email Spouse, Emg. Contact, Employer OCN Hospital Division	 Possible Serology Assigned Allele Pairs Possible Allele Pairs Other Assignment 	Sample ID: test Sample Source Sample Date Session ID: Micro SSP_201	70616161230_SSP#	Catalog: SSPJPYN_007_15	Local ID: Test Date: 6 16, 2017 Locus: A,B,C,DRB1,DRB345,DQB1	Test Po
Donor Info	Sequence Match Reaction	N_007_1 Allele Code/No Code Saved By: 1, 1	5 NMDP	Code Update Date: 6 12, 2017 Date: 6 16, 2017	Nomenclature Date: January 2017 Confirmed By:	Imgt Vo Date:
Creck All Concheck All Conc	Check All Uncheck All Check All Positive Ron Summary Non-amp Summary Variation Tray Ron Layout Gel Image Test Details Well Position Recognition Site Ron	Anigos Allele Code Possible Allele Code	A*24:XXI A*, A*34:XXI A*, A*31:XX2 A*; A*31:XX2 A*; A*; A*31:XX2 A*; A*; A*; A*; A*; A*; A*; A*; A*; A*;	912XX2 313X82 313X84 313X87 313X100 4032440426324062407240822 4032440426324062407240822 40324502431243224324 4032451243244324432 4118241192412241032410324104 41182411924121241222410324104 D C B A	609N2441024411N244132441324413244 34243524350438072438034380 245924592460N244124452445 2450245024502450345034503450345 24106244107244108244109244109244109 2134244125241262412724412824	24:18:24:20:24:21:24 t-40:N24:41:24:42:24 3:24:66:24:67:24:82 8:24:89:24:90:24:91 4:111:24:112:24:113/ 129:24:130:24:131:24
VMDP/Local/P/G code update date Code Sheet Test Reactions	Specificity Abbreviated Check All Uncheck All	1 1 2 1 3 1 4 1 5 1	1 1 1 8 1 1 8 1 1 1 1 1 1 1 1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		

1 1 1 1 1 1 1 1





• (参考)おすすめ設定

ype or enter the report name*:	
NGOT	•
 Approved By Patient ID, Name (REQUIRED for this group) Project Type SSN Ethnicity, DOB, Gender Disease, Status, Blood, Transplant Type Address, Phone, Email Spouse, Emg. Contact, Employer DCN, Hospital, Division Donor Info Typing Info Check All Uncheck All 	 Assigned Allele Code Possible Allele Code 1 Allele Assigned Serology Possible Serology Assigned Allele Pairs Possible Allele Pairs Other Assignment Sequence Match Reaction
Sample ID/Local ID Barcode Sample Session Info Saved/Confirmed Info More Testing Needed	Positive Rxn Summary Non-amp Summary Non-amp (1 and 8) Tray Rxn Layout Ø Gel Image
False Rxns/Ambiguity Exists False Rxns/Ambi	Test Details Well Position Well Number Recognition Site Rxn Specificity Abbreviated Check All Uncheck All





View Reportから、ファイルのエクスポートおよび印刷をすることができます。

rose ² 2017061011200301 Man Report	ページ数	MSSP				
		Approved By:			Date	
		Patient ID: Ethnicity: Blood Type:	Rh:	DOR:	Name Gender: UNK Category:	
		Address Email Spouse Name: Emergency Contact: Donor Center ID:		Phone: Division:	Mobile: Spouse Blood Type: Emergency Phone Hospital:	Fax: Employe r :
「リントアウト、名 Jを付けて保存が可		From Other Facility: Sample ID: test Sample Source Sample Date	NO		Local ID: Test Date: 6 16, 2017	
です。		Session ID: Micro SSP_2017 N 007 15	0616161230_SSPIP	Catalog: SSPJPN_007_15	Locus A,B,C,DRB1,DRB345,DQB1	Test Pox 1
		Allele Code/No Code: Saved By: 1, 1 Comment:	NMDP	Code Update Date: 6 12, 2017 Date: 6 16, 2017	Nomenclature Date: January 2017 Confirmed By:	Imgt Ver. 3.27.0 Date:
		Interpretation	A+24-XX1 A+3	LXX2		
		Possible Allele Code:	A*24:XX1 A*3 A*31:XX2 A*3 A*31:XX2 A*3 A*31:XX2 A*3 A*31:XX2 A*3 XX1=:24:02.04	1:XX2 1:08 3:YHJW 6:03 0:304-04-05-04-06-04-07-04-09-04-	00004-1004-11004-1204-1204-12	14-19/04-20/24-21 04-22/24-22/24-2
			24:26/24:27/24: 6/24:47/24:48N/ 2/24:73/24:74/24 97/24:98/24:99/2 4:116/24:117/24	28/24-29/24-30/24-31/24-32/24-33/24: 24:49/24:50/24:53/24:54/24:55/24:56/ 4:75/24:76/24:78/24:79/24:80/24:82/24 24:100/24:101/24:102/24:103/24:104/20	24/24/32/24/36/124/37/24/38/24/39/24/ 24/24/32/24/36/124/37/24/38/24/39/24/ 24/38/24/39/24/36/124/36/24/39/24/ 8/38/24/38/24/38/24/38/24/38/24/38/24/ 38/124/34/24/35/24/36/24/26/20/26/26/26/26	40024:11/24:22:24:43/24:45/02/ 24:66/24:67/24:68/24:69/24:70/24 8/24:89/24:90/24:91/24:95/24:96/2 1111/24:112/24:113/24:114/24:115

Fusionの操作方法 ーマイクロSSPー



解析に用いる設定を変更できます。
 Utilities>Molecular Product Configuration> Molecular Analysis Configuration



フィルターの指定等で使います。

MicroSSP Analysis Configuration			
HLA 製品の種類			
Product Type:	•		
Code NMDP O Local Code O P (Group 🔿 G Group 🔿 No Code		
Cross Colo フィルターの種	三类 Enable Cross Code	(DP)	
Demographic ver 1_Japanese_2017 Possible Allele Code	_Jan_G [Edit] Number of False Rons G1 ♥ G2 ♥ G3 ▲ Show SSP Well D	÷ 1 💌	
Computer Assigned Serology Flag Sero Ambiguity	🦳 Save Non-Amp All	lele Pairs Information	
フィルタリングした	結果をどこまで表示	させるか	
偽陽'	性/偽陰性の反応をい	くつまで受け	け入れるか
* : Required Field Reset to O	Ll Save Close	2	

解析補足 マイクロSSP JPNで検出可能な抗原型



Α		В	С	DR	DQ	
A1	B5	B49(21)	Cw1	DR1	DQ1	現在のHLA抗原
A2	B7	B50(21)	Cw2	DR103	DQ2	の種類
A203	B703	B51(5)	Cw3	DR2	DQ3	
A210	B8	B5102	Cw4	DR3	DQ4	
A3	B12	B5103	Cw5	DR4	DQ5(1)	
A9	B13	B52(5)	Cw6	DR5	DQ6(1)	
A10	B14	B53	Cw7	DR6	DQ7(3)	
A11	B15	B54(22)	Cw8	DR7	DQ8(3)	
A19	B16	B55(22)	Cw9(w3)	DR8	DQ9(3)	
A23(9)	B17	B56(22)	Cw10(w3)	DR9		
A24(9)	B18	B57(17)	C*11	DR10		
A2403	B21	B58(17)	C*12	DR11(5)		
A25(10)	B22	B59	C*13	DR12(5)		
A26(10)	B27	B60(40)	C*14	DR13(6)		
<mark>A28</mark>	B2708	B61(40)	C*15	DR14(6)		
A29(19)	B35	B62(15)	<mark>C*16</mark>	DR1403		
A30(19)	B37	B63(15)	C*17	DR1404		
A31(19)	B38(16)	B64(14)	<mark>C*18</mark>	DR15(2)		
A32(19)	B39(16)	B65(14)		DR16(2)		
A33(19)	B3901	B67		DR17(3)		ト人では報告がない抗原
A34(10)	B3902	B70		DR18(3)		
A36	B40	B71(70)				
A43	B4005	B72(70)		DR51		
A66(10)	B41	B73		DR52		
A68(28)	B42	B75(15)		DR53	☆	日できない抗原・
A69(28)	B44(12)	B76(15)				
A74(19)	B45(12)	B77(15)				
<mark>A80</mark>	B46	B78				
	B47	B81				
	B48	B82				
		Bw4				
		Bw6	1			