

Product Quality and Disposition Department

Diphtheria, tetanus, pertussis (acellular, component),
 hepatitis B (rDNA), poliomyelitis (inactivated) and Haemophilus
 influenzae type b conjugate vaccine (adsorbed) lot n° S4314 (clinical batch)

51/211

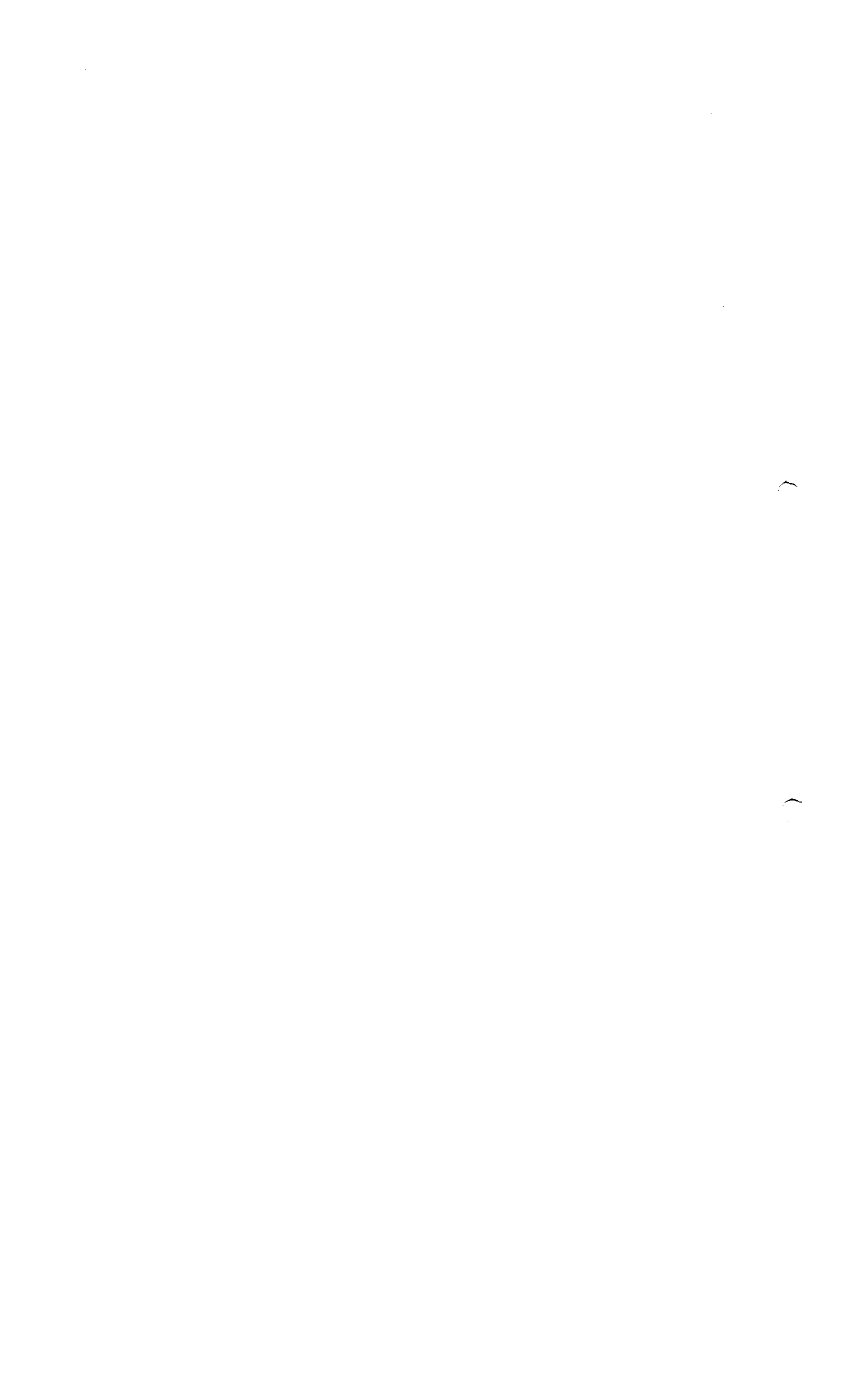
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HEPATITIS B SURFACE ANTIGEN

TESTS	SPECIFICATIONS
APPEARANCE	Opalescent, slightly cloudy and yellowish solution
pH MEASUREMENT	6.5 - 7.5
PROTEIN CONTENT	1.05 – 1.80 mg/mL
IDENTIFICATION OF HBsAg	Positive Main bands of molecular weight around 23 kD, 46 kD and eventually 65 kD
HBsAg CONTENT	≥0.7 mg of HBsAg/mg of total proteins
CARBOHYDRATES CONTENT	≤50 µg of carbohydrates/mg of total proteins
LIPIDS CONTENT	0.5 – 0.9 mg lipids/mg of total proteins
PURITY	≥95%
PERCENTAGE OF HBsAg FREE MONOMER	≤3%
BACTERIAL AND FUNGAL STERILITY TEST	Absence of microbial growth
BACTERIAL ENDOTOXINS	<10 EU/dose (i.e. 10 EU/10µg of proteins)


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52/211

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HEPATITIS B SURFACE ANTIGEN
Lot number : AC005

Date of manufacture : December 29th, 2007
Storage temperature : + 5°C ± 3°C
Expiry date : November 2010
(shelf life used at the time of the release of the batch)
Quantity: : 3,13171 g of proteins

CONTROLS :

Appearance

Method : Visual inspection
Date : March 17th, 2008
Result : **Opalescent, slightly cloudy and yellowish**
solution

pH

Method : Glass electrode
Date : March 17th, 2008
Result : **6,9 - Conforms**

Protein content

Method : Lowry
Date : April 22th, 2008
Result : **1,45 mg/ml - Conforms**

Identification of HBsAg

Method : ELISA
Date : April 22nd, 2008
Result : **Positive**

Method : SDS - PAGE
Date : September 11th, 2008
Result : **Conforms**

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53/211

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HBsAg Content

Method : ELISA
 Date : April 22nd, 2008
 Result : 1,0 mg/mg of total proteins – **Conforms**

Carbohydrates Content

Method : Colorimetric assay
 Date : April 22nd, 2008
 Result : 33 µg/mg of total proteins – **Conforms**

Lipids Content

Method : Colorimetric assay
 Date : April 22nd, 2008
 Result : 0,8 mg/mg of total proteins – **Conforms**

Purity Content

Method : SDS - PAGE
 Date : September 11th, 2008
 Result : **96 %**

Percentage of HBsAg free monomer

Method : SDS - PAGE
 Date : February 27th, 2008
 Result : Less than 3 % - **Conforms**

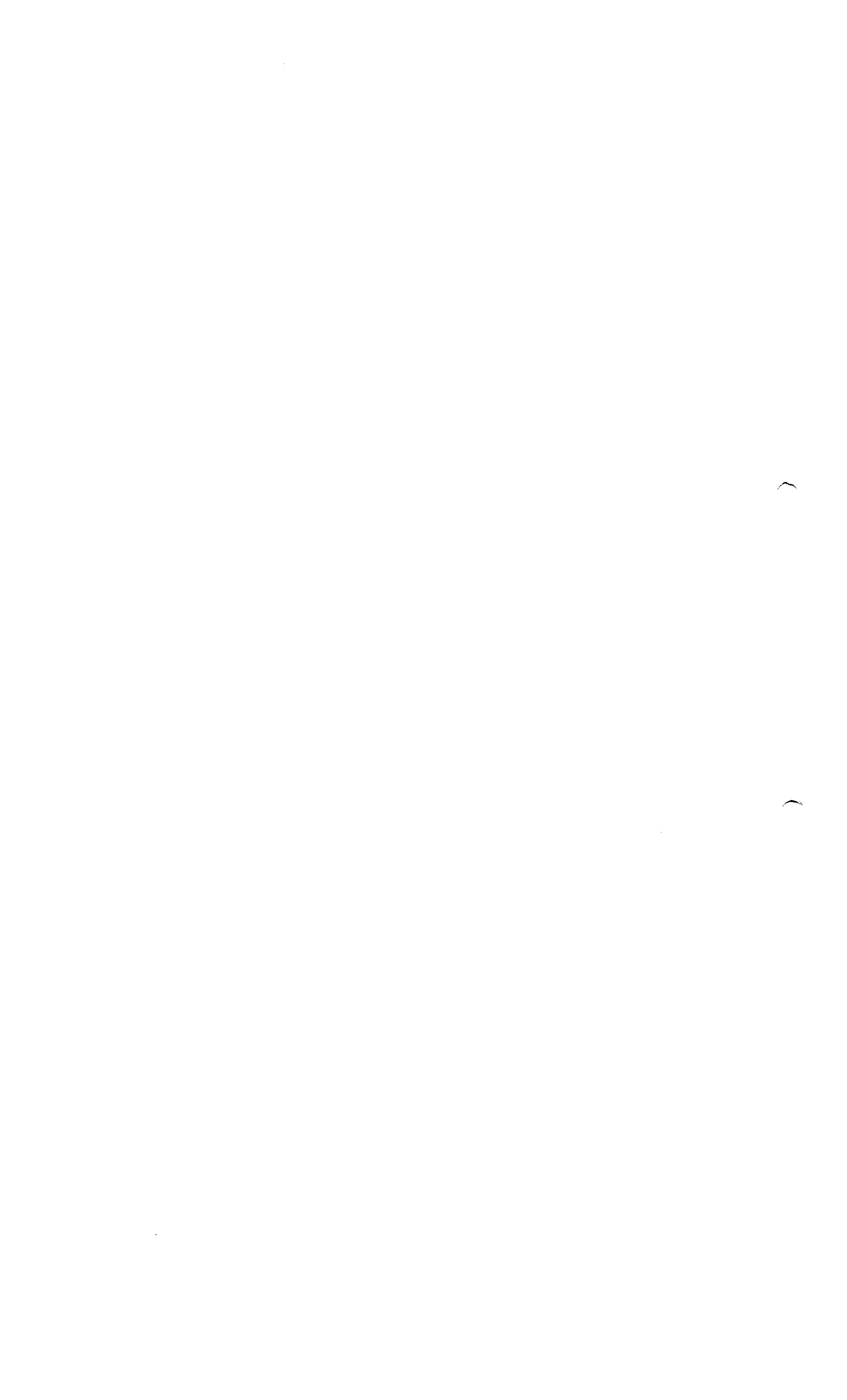
Bacterial and fungal sterility

Method	:	Membrane filtration
Media	:	Thioglycollate medium Soybean-Casein Digest medium
Temperature	:	30-35° C 20-25° C
Inoculum per Steritest	:	10 ml 10 ml
Volume of medium per Steritest	:	100 ml 100 ml
Test on	:	January 29 th , 2008
Test off	:	February 12 th , 2008
Result	:	No microbial growth - Conforms

Bacterial Endotoxins

Method : LAL – Gel clot
 Date : February 19th, 2008
 Result : <1 EU/20µg of proteins- **Conforms**

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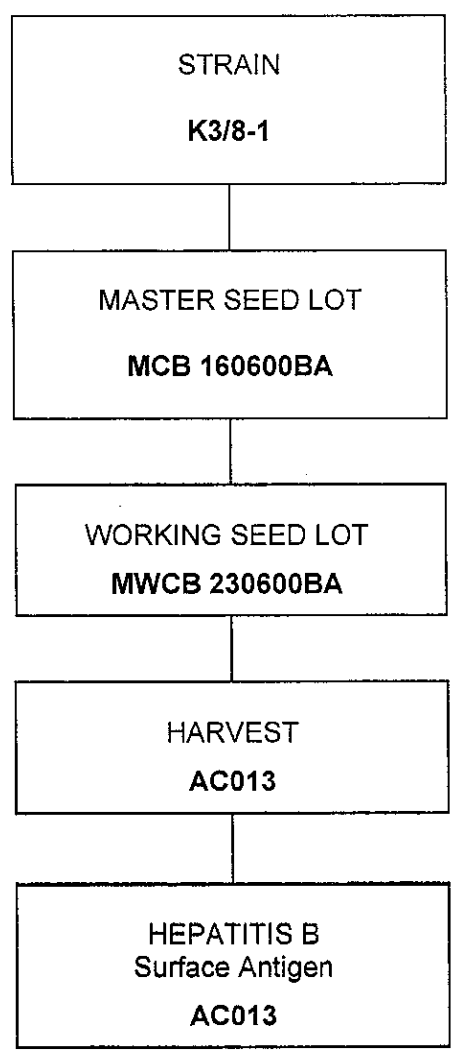
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54/211

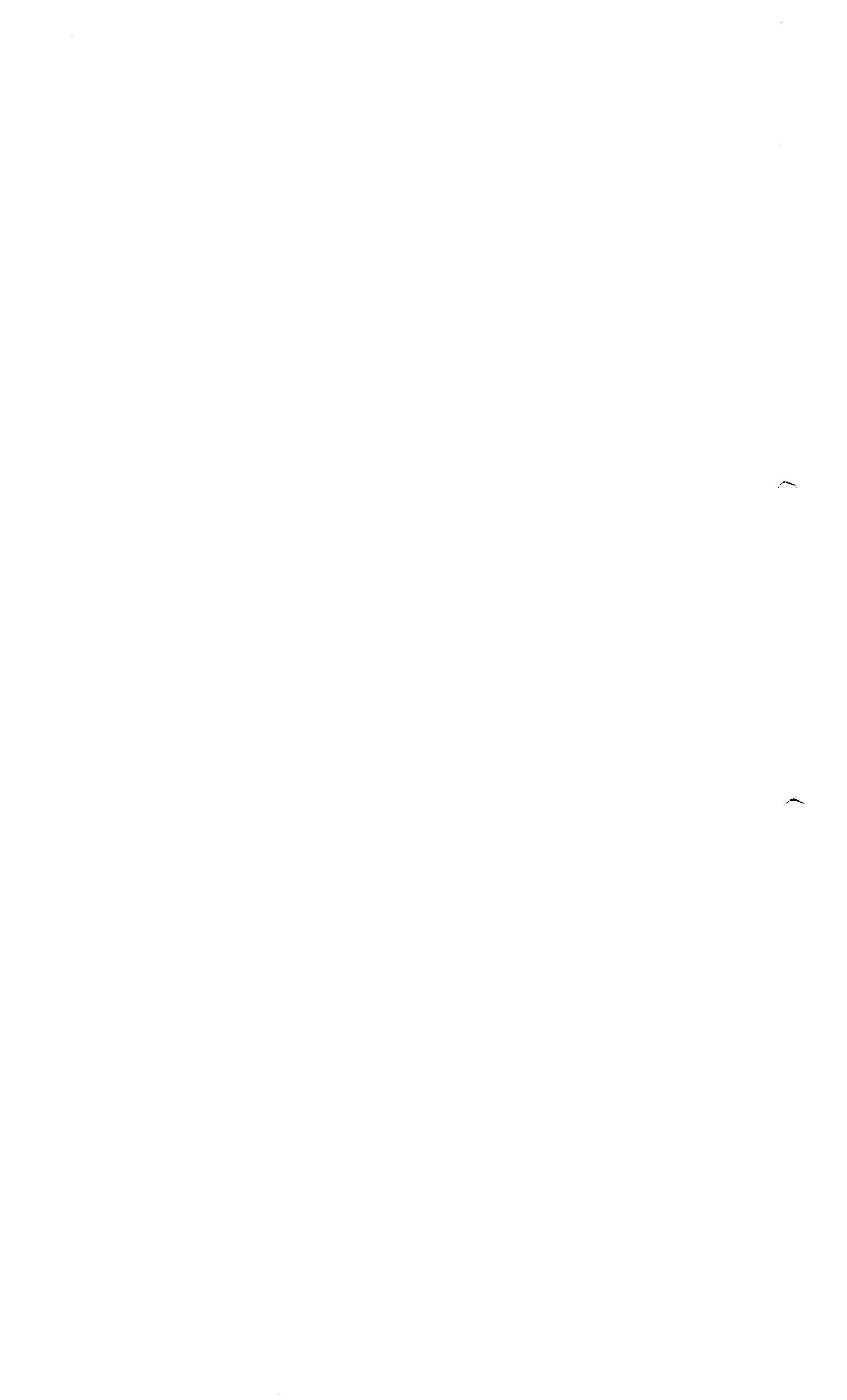
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PRODUCTION FLOW SHEET

352_CC5_SPL_AE.dot /19.09.11



 ROXANA MONTEMILONE CHRISTIAN DOMÍNGUEZ
 DIRECTORA TÉCNICA INGENIERO DE BERRADO
 SANOFI PASTEUR S.A. SANOFI PASTEUR S.A.





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55/211

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HANSENULA POLYMORPHA
Strain : K3/8-1

STRAIN

Name : Hansenula Polymorpha RB11
Origin : Rhein Biotech
Received : February 15th, 2000

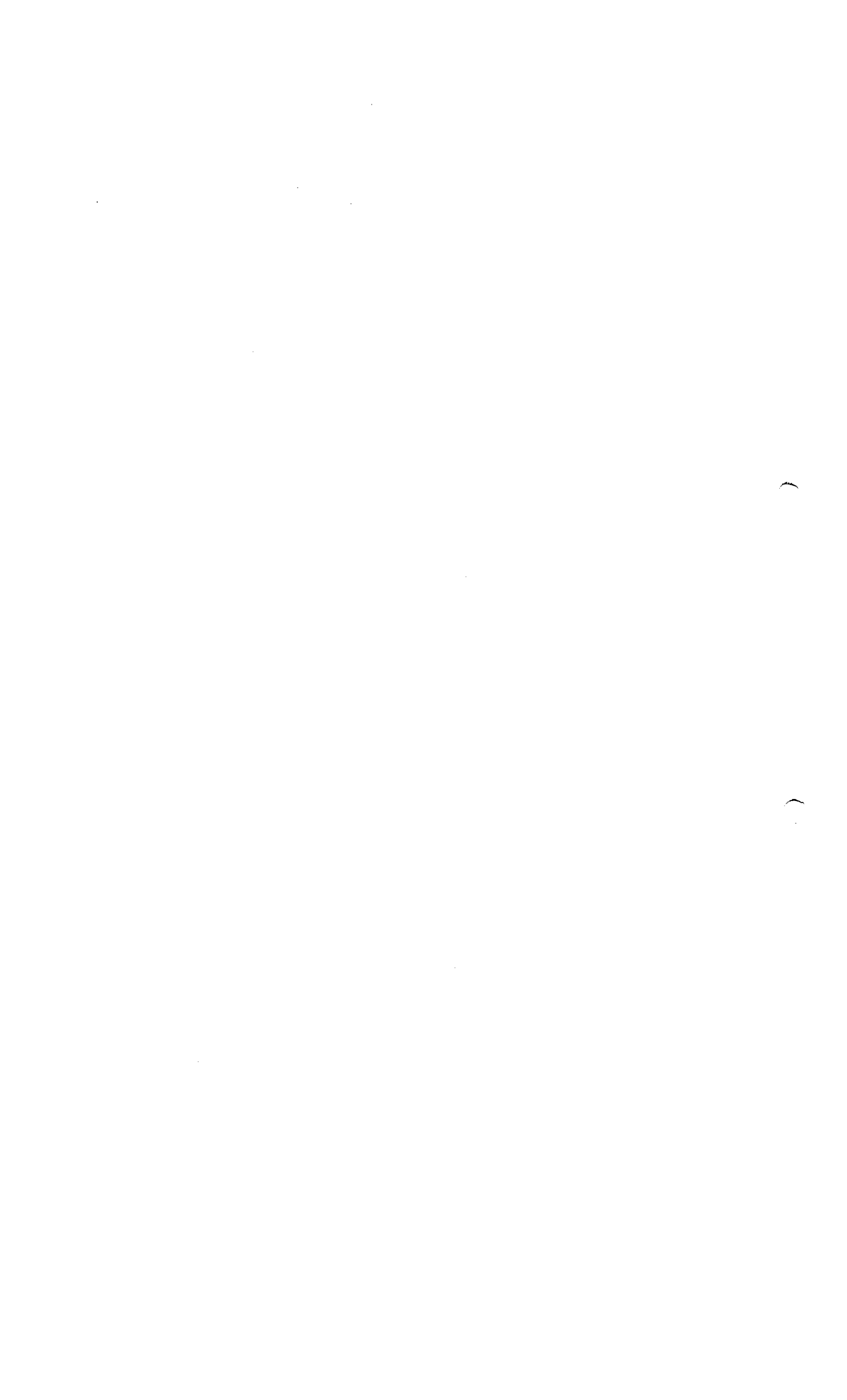
HANSENULA POLYMORPHA
Master seed lot n° MCB 160600BA

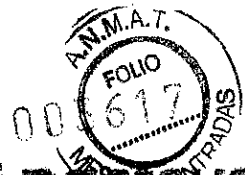
Strain : IM K3/8-1
Preparation date : June 16th, 2000
Release date : June 29th, 2001

CONTROLS

- Purity . Conforms
Identification : Conforms
Full integration of the vector : Conforms
Number of copies of the plasmid in the genome : Conforms
Integrated cDNA gene sequence : Conforms
Sequencing of the regions 3' and 5' : Conforms
Determination of the population of yeast cells containing the cloned gene: Conforms

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56/211

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HANSENULA POLYMORPHA
Working seed lot n°MWCB 230600BA


Master seed lot : MCB 160600BA
Preparation date : June 23rd, 2000
Release date : June 29th, 2001

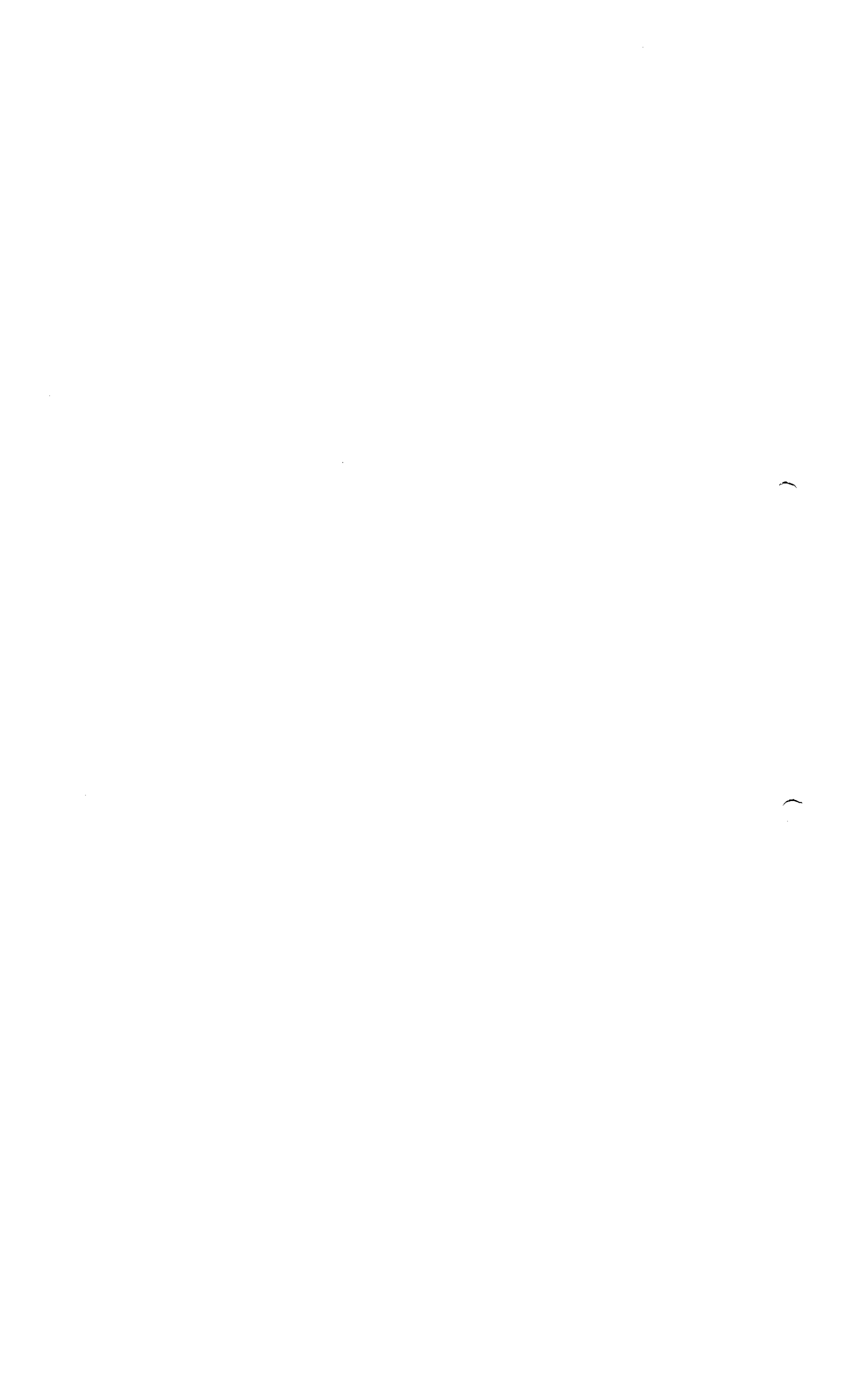
CONTROLS

- Purity . **Conforms**
- Identification : **Conforms**
- Full integration of the vector : **Conforms**
- Number of copies of the plasmid in the genome : **Conforms**
- Integrated cDNA gene sequence : **Conforms**
- Sequencing of the regions 3' and 5' : **Conforms**
- Determination of the population of yeast cells containing the cloned gene: **Conforms**

The tests results show that working seed lot has the same characteristics as the master seed lot.


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57/211

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HEPATITIS B SURFACE ANTIGEN
Lot n° AC013

Strain : K3/8-1
Working seed lot number : MWCB 230600BA
Date of reconstitution of working seed lot vials: April 1st, 2008
Temperature incubation : 28 to 32°C

Harvest

Date of inoculation in last stage of fermentation : April 4th, 2008
Date of harvest : April 7th, 2008
Volume : 50 liters

CONTROLS

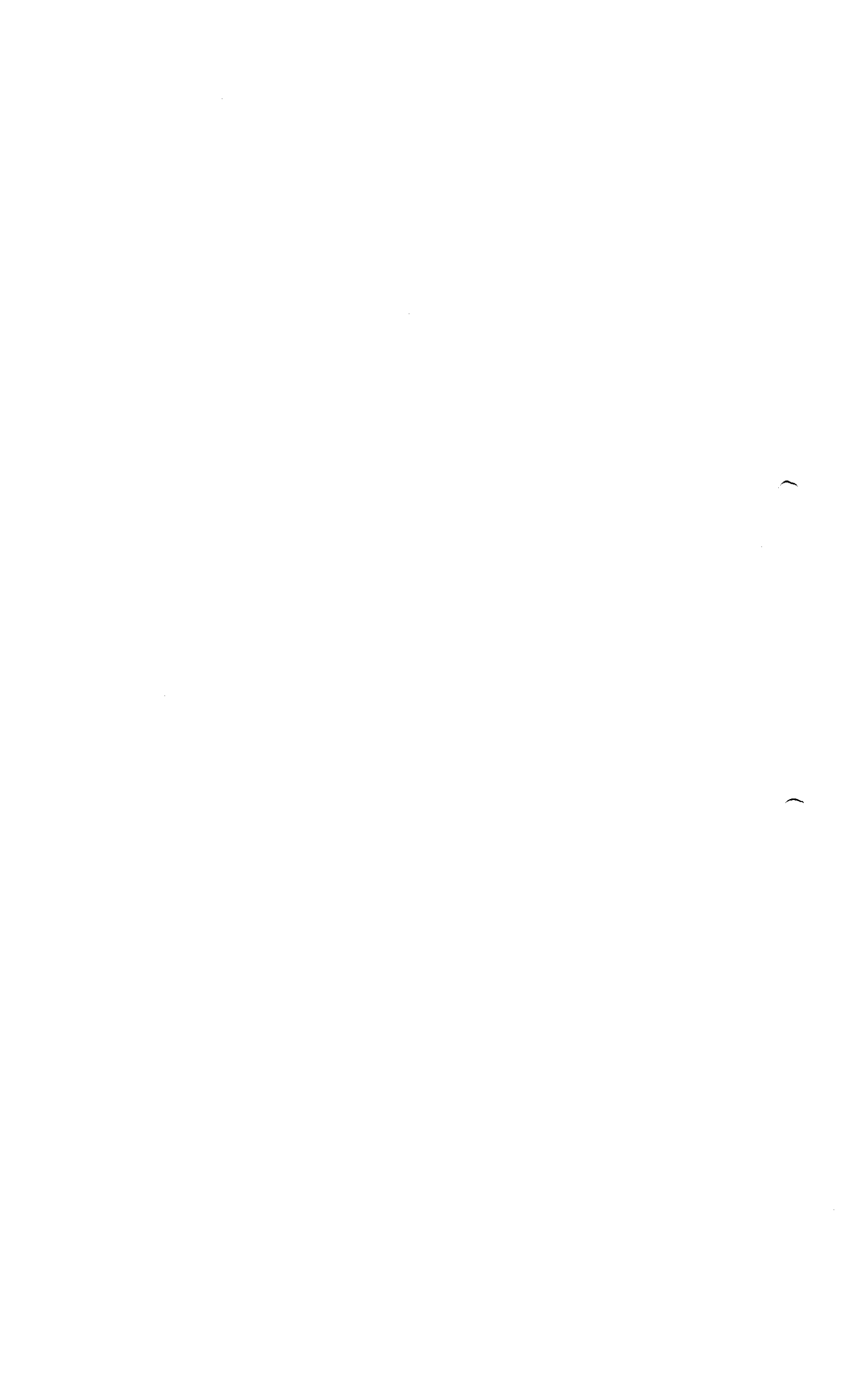
Microbiological purity

Method : Direct Inoculation
Result : Absence of microbiological contamination

Identification of *Hansenula Polymorpha*

Method : Biochemical and microscopic Tests
Result : Conforms

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58/211

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