

# **Public Assessment Report**

# Scientific discussion

Olmesartan medoxomil/Amlodipine/HCT Accord 20 mg/5 mg/12.5 mg, 40 mg/5 mg/12.5 mg, 40 mg/5 mg/12.5 mg and 40 mg/10 mg/25 mg film-coated tablets (olmesartan medoxomil, amlodipine besilate, hydrochlorothiazide)

NL/H/6466/001-005/DC

Date: 7 August 2025

This module reflects the scientific discussion for the approval of Olmesartan medoxomil/Amlodipine/HCT Accord 20 mg/5 mg/12.5 mg, 40 mg/5 mg/12.5 mg, 40 mg/5 mg/12.5 mg, 40 mg/5 mg/12.5 mg and 40 mg/10 mg/25 mg film-coated tablets. The procedure was finalised at 9 March 2020 in Spain (ES/H/0623/001-005/DC). After a transfer on 18 June 2025, the current RMS is the Netherlands. For information on changes after the finalisation date please refer to the 'steps taken after finalisation' at the end of this PAR.



# List of abbreviations

ASMF Active Substance Master File

CEP Certificate of Suitability to the monographs of the European Pharmacopoeia

CHMP Committee for Medicinal Products for Human Use

CMD(h) Coordination group for Mutual recognition and Decentralised procedure for

human medicinal products

CMS Concerned Member State
EDMF European Drug Master File

EDQM European Directorate for the Quality of Medicines

EEA European Economic Area
EMA European Medicines Agency
ERA Environmental Risk Assessment

ICH International Conference of Harmonisation

MAH Marketing Authorisation Holder

Ph.Eur. European Pharmacopoeia

PL Package Leaflet
RH Relative Humidity
RMP Risk Management Plan
RMS Reference Member State

SmPC Summary of Product Characteristics

TSE Transmissible Spongiform Encephalopathy



# I. INTRODUCTION

Based on the review of the quality, safety and efficacy data, the Member States have granted a marketing authorisation for Olmesartan medoxomil/Amlodipine/HCT Accord 20 mg/5 mg/12.5 mg, 40 mg/5 mg/12.5 mg, 40 mg/10 mg/12.5 mg, 40 mg/10 mg/12.5 mg film-coated tablets, from Accord Healthcare B.V.

The product is indicated in the treatment of essential hypertension.

Add-on therapy

Olmesartan medoxomil/Amlodipine/HCT Accord film-coated tablets is indicated in adult patients whose blood pressure is not adequately controlled on the combination of olmesartan medoxomil and amlodipine taken as dual-component formulation.

Substitution therapy

Olmesartan medoxomil/Amlodipine/HCT Accord film-coated tablets is indicated as substitution therapy in adult patients whose blood pressure is adequately controlled on the combination of olmesartan medoxomil, amlodipine and hydrochlorothiazide, taken as a dual-component (olmesartan medoxomil and amlodipine or olmesartan medoxomil and hydrochlorothiazide) and a single-component formulation (hydrochlorothiazide or amlodipine).

A comprehensive description of the indications and posology is given in the current SmPC.

The marketing authorisation has been granted pursuant to Article 10.1 of Directive 2001/83/EC.



# II. QUALITY ASPECTS

#### **II.1** Introduction

The finished product is presented as film-coated tablets, the description of the different strengths are indicated below:

Olmesartan medoxomil/Amlodipine/HCT Accord film-coated tablets 20 mg/5 mg/12.5 mg Off white to peach, round, bevel-edged, film-coated tablets debossed with "OC1" on one side and plain on other side.

Olmesartan medoxomil/Amlodipine/HCT Accord film-coated tablets 40 mg/5 mg/12.5 mg Light yellow, round, bevel-edged, film-coated tablets debossed with "OC2" on one side and plain on other side.

Olmesartan medoxomil/Amlodipine/HCT Accord film-coated tablets 40 mg/5 mg/25 mg Light yellow, oval, bevel-edged, film-coated tablets debossed with "OC3" on one side and plain on other side.

Olmesartan medoxomil/Amlodipine/HCT Accord film-coated tablets 40 mg/10 mg/12.5 mg Brick red, round, bevel-edged, film-coated tablets debossed with "OC4" on one side and plain on other side.

Olmesartan medoxomil/Amlodipine/HCT Accord film-coated tablets 40 mg/10 mg/25 mg Brick red, oval, bevel-edged, film-coated tablets debossed with "OC5" on one side and plain on other side.

The maximum daily dose 40 mg/10 mg/ 25 mg (Olmesartan/ Amlodipine/Hydrochlorothiazide) Olmesartan medoxomil/Amlodipine/HCT Accord tablets are packed in Alu-Alu blisters.

All the components of the product are included in the composition table. Excipients are listed specifying their common name, the quantity present, their function and a reference to a relevant standard.

Olmesartan medoxomil/Amlodipine/HCT Accord tablets are packed in Alu-Alu blisters and/or PPCP (Polypropylen Co-Polymer) containers.

# II.2 Drug Substance

#### Olmesartan medoxomil

The quality of the active ingredient Olmesartan medoxomil is supported by CEP. Copies of the most current CEPs are included in the dossier.



#### Amlodipine Besilate

The quality of the active ingredient Amlodipine Besilat is supported by CEP. Copies of the most current CEPs are included in the dossier.

#### Hydrochlorothiazide

The quality of the active ingredient Hydrochlorothiazide is supported by CEP. Copies of the most current CEPs are included in the dossier.

#### II.3 Medicinal Product

#### Pharmaceutical development

The development of the product has been described, the choice of excipients is justified and their functions explained.

The physicochemical characteristics of the active substance that may affect the pharmaceutical form are identified and their control strategy is justified.

# Manufacturing process

The manufacturing process is fully described and in-process controls are appropriate considering the nature of the product and the manufacturing process. The industrial batch size is well-defined.

Sufficient validation data are provided.

#### Control of excipients

Excipients used are well known and of appropriate quality.

#### Quality control of drug product

The finished product specifications are adequate to control the finished product. Provided description and validation data for the analytical methods are adequate. Batch analysis data have been submitted and the results show that the finished product meets the proposed release specification.

The finished product is packed packed in Alu-Alu blisters and/or PPCP containers (bulk storage/ transportation pack), The choice of the container closure system is justified considering the nature of the finished product. Compliance with the relevant requirements and/or regulations is confirmed.



#### Stability of drug product

Stability studies have been performed in accordance with current guidelines. The proposed protocol is considered adequate. The packaging material is the same as that intended for marketing. Proposed shelf-life and storage conditions are properly established.

Shelf-life: 3 years.

**Storage conditions:** This medicinal product does not require any special storage conditions.

<u>Specific measures concerning the prevention of the transmission of animal spongiform</u> encephalopathies

None of the excipients is of animal origin, except lactose monohydrate. Lactose monohydrate of animal origin is used in the formulation. It is confirmed by the manufacturer that the Lactose monohydrate is prepared without the use of other ruminant material than milk and calf rennet. Milk is sourced from healthy animals in the same conditions as milk collected for human consumption in accordance with the EU food hygiene regulations.

# III. NON-CLINICAL ASPECTS

# III.1 Ecotoxicity/environmental risk assessment (ERA)

Since Olmesartan medomixil/Amlodipine/HCT Accord 20 mg/5 mg/12.5 mg, 40 mg/5 mg/12.5 mg, 40 mg/10 mg/12.5 mg, 40 mg/5 mg/25 mg, 40 mg/10 mg/25 mg film-coated tablets is a generic product, it will not lead to an increased exposure to the environment. Therefore, additional ERA studies are not deemed necessary.

# III.2 Discussion on the non-clinical aspects

Pharmacodynamic, pharmacokinetic and toxicological properties of olmesartan, amlodipine and hydrochlorothiazide are well known. As olmesartan, amlodipine and hydrochlorothiazide are widely used, well-known actives substances, the applicant has not provided additional studies, and further studies are not required. Overview based on literature review is, thus, appropriate.

# IV. CLINICAL ASPECTS

#### IV.1 Introduction

Olmesartan/amlodipine/hydrochlorothiazide is a well-known combination of substances with established efficacy and safety. A clinical overview has been provided, which is based on



scientific literature. The clinical overview justifies that there no need to generate additional clinical data.

For this generic application of an immediate release formulation, the MAH has submitted four bioequivalence studies concerning the following strengths: 40 mg/5 mg/12.5 mg, 40 mg/10 mg/12.5 mg, 40 mg/10 mg/25 mg, according to the *Guideline on the investigation of bioequivalence*, which are discussed below.

#### IV.2 Pharmacokinetics

#### Biowaiver

This application concerns five strengths, i.e., 20 mg/5 mg/12.5 mg, 40 mg/5 mg/12.5 mg, 40 mg/10 mg/12.5 mg, 40 mg/5 mg/25 mg and 40 mg/10 mg/25 mg film-coated tablets, and the bioequivalence studies have been carried out with the 40 mg/5 mg/12.5 mg, 40 mg/10 mg/12.5 mg, 40

The criteria according to the *Guideline on the Investigation of Bioequivalence* for waiving the 20/5/12.5 mg strength are fulfilled as:

- The five strengths are manufactured with the same process.
- The qualitative composition of all the strengths is the same.
- The composition of the strengths is quantitatively proportional.
- Appropriate dissolution profiles between the different strengths have confirmed to be similar.

#### Bioequivalence studies

Study code 785-15

#### **GCP** compliance

The studies were conducted in accordance with Good Clinical Practice (GCP) standards. Monitoring reports and certificates of audits carried out by the Quality Assurance Unit are presented. The sites have been previously inspected by EU regulatory authorities.

#### Clinical and analytical facilities

Lambda Therapeutic Research Ltd. Lambda House, Plot No. 38, Survey No. 388, Near Silver Oak Club, S. G. Highway, Gota, Ahmedabad-38248 1, Gujarat, India.

#### Design

A randomised, single-dose, two-treatment, two-period, two sequence, crossover bioequivalence study was carried out under fasted conditions in 55 healthy male subjects, aged 22–38 years. Each subject received a single dose (40/10/12.5 mg tablet) of one of the two active substance formulations. The tablet was orally administered with 240 ml water after



an overnight fast of at least ten hours. There were two dosing periods, separated by a washout period of 24 days.

#### **Analytical and statistical methods**

The analytical method has been adequately validated and is considered acceptable for analysis of the plasma samples.

The 90% confidence interval (90% CI) of the ratio of the test formulation to the reference formulation for the log-transformed values of Cmax and AUC was calculated using an ANOVA model. This model included the covariates sequence, period, formulation and subject nested to sequence. Bioequivalence was defined when the 90% CI of the ratios (test/reference) for Cmax and AUC was in the range 80.00 -125.00%.

The methods used in this study for the pharmacokinetic calculations and statistical evaluation are considered acceptable.

#### **Results**

55 subjects were included in the study. 55 subjects were treated; 53 subjects completed the study and 53 were used in the statistical analysis according to the protocol. The inclusion and exclusion criteria are considered acceptable for a bioequivalence study.

## **Descriptive statistics**

#### **Olmesartan**

# Descriptive Statistics of Formulation Means for Olmesartan (N = 53)

Parameters (Units)	Mean ± SD (untransformed data)			
	Test Product-T Reference Product-			
T <sub>max</sub> (h)*	2.333 (1.000 - 4.500)	2.333 (1.000 - 4.500)		
C <sub>max</sub> (ng/mL)	1478.728 ± 334.7095	1444.866 ± 370.5367		
AUC <sub>0-t</sub> (ng.h/mL)	10562.816 ± 2645.6600	10134.393 ± 2358.4022		
AUC <sub>0-∞</sub> (ng.h/mL)	10692.316 ± 2712.7588	10263.782 ± 2421.7541		
λ <sub>z</sub> (1/h)	$0.087 \pm 0.0138$	0.087 ± 0.0155		
t <sub>1/2</sub> (h)	8.196 ± 1.4864	8.275 ± 1.6692		
AUC_%Extrap_obs (%)	1.146 ± 0.7953	1.191 ± 0.8587		

<sup>\*</sup>Tmax is represented in median (min-max) value.

#### Hydrochlorothiazide

# Descriptive Statistics of Formulation Means for Hydrochlorothiazide (N = 53)

Parameters (Units)	Mean ± SD (untransformed data)			
	Test Product-T Reference Product			
T <sub>max</sub> (h)*	1.667 (0.667 - 4.500)	1.333 (1.000 - 3.333)		
C <sub>max</sub> (ng/mL)	104.023 ± 31.1390	105.644 ± 33.1844		
AUC <sub>0-t</sub> (ng.h/mL)	742.070 ± 209.9743	728.726 ± 206.3590		
AUC₀-∞ (ng.h/mL)	763.308 ± 212.2156	$750.394 \pm 209.1588$		
λ <sub>z</sub> (1/h)	0.077 ± 0.0136	$0.076 \pm 0.0101$		
t <sub>1/2</sub> (h)	9.175 ± 1.1937	9.327 ± 1.1800		
AUC_%Extrap_obs (%)	2.940 ± 0.9580	3.036 ± 0.9610		

<sup>\*</sup>Tmax is represented in median (min-max) value.

# **S-Amlodipine**

_Parameters (Units)	Mean ± SD (untransformed data)			
	Test Product-T <sup>^</sup> Reference Product-			
$T_{max}(h)^*$	6.009 (4.000 - 12.000)	6.500 (4.500 - 12.000)		
C <sub>max</sub> (ng/mL)	6.183 ± 1.4458	6.162 ± 1.4827		
AUC <sub>0-72</sub> (ng.h/mL)	232.400 ± 55.7763	233.214 ± 55.3779		

 $<sup>^*</sup>T_{max}$  is represented in median (min-max) value.  $^N$  = 52.

# **R-Amlodipine**

_Parameters (Units)		n ± SD ormed data)		
	Test Product-T^ Reference Product-R			
$T_{max}(h)^*$	6.000 (4.000 - 12.000)	6.500 (4.500 - 12.000)		
C <sub>max</sub> (ng/mL)	$3.739 \pm 1.0523$	3.777 ± 1.0336		
AUC <sub>0-72</sub> (ng.h/mL)	123.750 ± 39.0109	126.715 ± 36.6803		

<sup>\*</sup>T<sub>max</sub> is represented in median (min-max) value. N = 52.

# **Bioequivalence evaluation**

# Olmesartan

# Relative Bioavailability Results for Olmesartan (N = 53)

	Geometric Least Squares Means		90%	Intra		
Parameters	Test Product-T	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
lnC <sub>max</sub>	1437.172	1400.764	102.6	96.63 - 108.94	18.6	100.0
lnAUC <sub>0-t</sub>	10240.513	9876.228	103.7	98.05 - 109.65	17.3	100.0
$lnAUC_{0-\infty}$	10360.067	9995.845	103.6	98.05 - 109.55	17.2	100.0

(Refer Table No. 14.2.1.1)

# Hydrochlorothiazide

	Geometric	ic Least Squares Means		90%	Intra	
Parameters	Test Product-T	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
lnC <sub>max</sub>	99.556	100.327	99.2	94.57 - 104.12	14.9	100.0
lnAUC <sub>0-t</sub>	713.131	700.219	101.8	98.53 - 105.27	10.2	100.0
lnAUC₀-∞	734.763	722.184	101.7	98.45 - 105.14	10.1	100.0

(Refer Table No. 14.2.4.1)

# **S-Amlodipine**

	Geometric Least Squares Means		90%	Intra		
Parameters	Test Product-T^	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
lnC <sub>max</sub>	6.021	6.015	100.1	96.55 - 103.80	11.1	100.0
lnAUC <sub>0-72</sub>	226.143	227.807	99.3	96.65 - 101.96	8.2	100.0

 $^{\hat{}}N = 52.$ 

# **R-Amlodipine**

	Geometric Least Squares Means		90%	Intra		
Parameters	Test Product-T <sup>^</sup>	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
lnC <sub>max</sub>	3.594	3.660	98.2	94.03 - 102.56	13.3	100.0
lnAUC <sub>0-72</sub>	118.487	122.254	96.9	93.41 - 100.56	11.3	100.0

Based on the submitted bioequivalence study, Olmesartan medoxomil/Amlodipine/HCT Accord 40 mg/10 mg/12.5 mg film-coated tablets, when compared with the Reference Product Sevikar HCT® 40 mg/10 mg/12.5 mg film-coated tablets in fasting condition seems to meet the bioequivalence criteria with respect to the Cmax and AUC.



#### Study code 0965-18

#### **GCP** compliance

The studies were conducted in accordance with Good Clinical Practice (GCP) standards. Monitoring reports and certificates of audits carried out by the Quality Assurance Unit are presented. The sites have been previously inspected by EU regulatory authorities.

#### Clinical and analytical facilities

Lambda Therapeutic Research Ltd. Lambda House, Plot No. 38, Survey No. 388, Near Silver Oak Club, S. G. Highway, Gota, Ahmedabad-38248 1, Gujarat, India.

#### Design.

A randomised, single-dose, two-treatment, two-period, two sequence, crossover bioequivalence study was carried out under fasted conditions in 56 healthy male subjects, aged 25-36 years. Each subject received a single dose (40/10/25 mg tablet) of one of the two active substance formulations. The tablet was orally administered with 240 ml water after an overnight fast of at least ten hours. There were two dosing periods, separated by a washout period of 22 days.

# **Analytical and statistical methods**

The analytical method has been adequately validated and is considered acceptable for analysis of the plasma samples.

The 90% confidence interval (90% CI) of the ratio of the test formulation to the reference formulation for the log-transformed values of Cmax and AUC was calculated using an ANOVA model. This model included the covariates sequence, period, formulation and subject nested to sequence. Bioequivalence was defined when the 90% CI of the ratios (test/reference) for Cmax and AUC was in the range 80.00 -125.00%.

The methods used in this study for the pharmacokinetic calculations and statistical evaluation are considered acceptable.

#### **Results**

56 subjects were dosed and 52 subjects completed the study and used in the statistical analysis according to the protocol.

The inclusion and exclusion criteria are considered acceptable for a bioequivalence study.

# **Descriptive statistics**

#### **Olmesartan**

# Descriptive Statistics of Formulation Means for Olmesartan (N = 52)

Parameters (Units)	Mean ± SD (untransformed data)  Test Product-T Reference Product-F			
T <sub>max</sub> (h)*	2.250 (1.000 - 4.517)	2.000 (1.250 - 4.000)		
C <sub>max</sub> (ng/mL)	2003.232 ± 553.4829	2023.892 ± 538.1066		
AUC <sub>0-t</sub> (ng.h/mL)	$13786.627 \pm 3910.8206$	$13827.703 \pm 4211.9324$		
AUC₀-∞ (ng.h/mL)	13945.386 ± 3965.5287	13987.707 ± 4283.5114		
$\lambda_z$ (1/h)	$0.087 \pm 0.0150$	$0.088 \pm 0.0149$		
t½ (h)	$8.231 \pm 2.0232$	$8.135 \pm 1.8368$		
AUC_%Extrap_obs (%)	$1.113 \pm 0.9101$	$1.083 \pm 0.9066$		

<sup>\*</sup>T<sub>max</sub> is represented as median (min-max) value.

# Hydrochlorothiazide

# **Descriptive Statistics of Formulation Means for Hydrochlorothiazide (N = 52)**

Parameters (Units)		n ± SD ormed data)		
	Test Product-T Reference Produ			
T <sub>max</sub> (h)*	1.634 (0.750 - 4.000)	1.500 (0.750 - 4.000)		
C <sub>max</sub> (ng/mL)	206.128 ± 44.5555	206.714 ± 52.3177		
AUC <sub>0-t</sub> (ng.h/mL)	1412.161 ± 322.5181	1357.402 ± 373.8705		
$AUC_{0\text{-}\infty}  (ng.h/mL)$	1440.897 ± 337.5881	1388.601 ± 392.5894		
$\lambda_{z}$ (1/h)	$0.079 \pm 0.0077$	$0.078 \pm 0.0082$		
t <sub>1/2</sub> (h)	$8.891 \pm 0.9205$	$9.020 \pm 1.0447$		
AUC_%Extrap_obs (%)	$1.900 \pm 0.7522$	$2.133 \pm 0.9224$		

 $<sup>^*</sup>T_{\text{max}}$  is represented as median (min-max) value.

# $\begin{tabular}{ll} S-Amlodipine \\ \underline{Descriptive\ Statistics\ of\ Formulation\ Means\ for\ S-amlodipine\ (N=52)} \end{tabular}$

_Parameters (Units)	Mean ± SD (untransformed data)		
	Test Product-T Reference Produc		
T <sub>max</sub> (h)*	6.250 (4.500 - 12.000)	6.009 (4.500 - 12.017)	
C <sub>max</sub> (ng/mL)	$3.651 \pm 0.6201$	$3.673 \pm 0.6230$	
AUC <sub>0-72</sub> (ng.h/mL)	139.772 ± 27.9213	142.801 ± 28.9166	

 $<sup>{}^*</sup>T_{max}$  is represented as median (min-max) value.

#### **R-Amlodipine**

# Descriptive Statistics of Formulation Means for R-amlodipine (N = 52)

_Parameters (Units)	Mean ± SD (untransformed data)		
	Test Product-T Reference Product		
T <sub>max</sub> (h)*	6.000 (4.500 - 12.017)	6.000 (4.500 - 12.017)	
C <sub>max</sub> (ng/mL)	$3.380 \pm 0.7311$	$3.465 \pm 0.7075$	
AUC <sub>0-72</sub> (ng.h/mL)	113.969 ± 35.2221	$117.905 \pm 34.0098$	

 $<sup>{}^{*}</sup>T_{max}$  is represented as median (min-max) value.

# **Bioequivalence evaluation**

#### Olmesartan

# Relative Bioavailability Results for Olmesartan (N = 52)

	Geometric Least Squares Means			90%	Intra	1
Parameters	Test Product-T	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
lnC <sub>max</sub>	1923.938	1952.238	98.6	93.23 - 104.18	17.0	100.0
lnAUC <sub>0-t</sub>	13203.751	13184.677	100.1	95.34 - 105.19	15.0	100.0
lnAUC₀-∞	13353.748	13329.772	100.2	95.33 - 105.28	15.2	100.0

# Hydrochlorothiazide

# Relative Bioavailability Results for Hydrochlorothiazide (N = 52)

	Geometric	Least Square	s Means	90%	Intra	
Parameters	Test Product-T	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
lnC <sub>max</sub>	201.738	200.522	100.6	95.24 - 106.27	16.8	100.0
lnAUC <sub>0-t</sub>	1376.610	1311.439	105.0	100.95 - 109.15	11.9	100.0
lnAUC₀-∞	1403.354	1340.125	104.7	100.74 - 108.85	11.8	100.0

### **S-Amlodipine**

# Relative Bioavailability Results for S-amlodipine (N = 52)

	Geometric 1	Least Square	s Means	90%	Intra	
Parameters	Test Product-T	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
lnC <sub>max</sub>	3.604	3.622	99.5	96.82 - 102.31	8.4	100.0
lnAUC <sub>0-72</sub>	137.191	139.679	98.2	96.35 - 100.12	5.8	100.0

#### **R-Amlodipine**

# Relative Bioavailability Results for R-amlodipine (N = 52)

	Geometric :	Least Square	s Means	90%	Intra	
Parameters	Test Product-T	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
lnC <sub>max</sub>	3.306	3.395	97.4	94.63 - 100.21	8.7	100.0
lnAUC <sub>0-72</sub>	108.389	112.767	96.1	93.41 - 98.90	8.7	100.0

Based on the submitted bioequivalence study, Olmesartan medoxomil/Amlodipine/HCT Accord 40 mg/10 mg/25 mg film-coated tablets, when compared with the Reference Product Sevikar HCT® 40 mg/10 mg/25 mg film-coated tablets in fasting condition seems to meet the bioequivalence criteria with respect to the Cmax and AUC.



#### **Study code 0966-18**

#### **GCP** compliance

The studies were conducted in accordance with Good Clinical Practice (GCP) standards. Monitoring reports and certificates of audits carried out by the Quality Assurance Unit are presented. The sites have been previously inspected by EU regulatory authorities.

# Clinical and analytical facilities

Lambda Therapeutic Research Ltd. Lambda House, Plot No. 38, Survey No. 388, Near Silver Oak Club, S. G. Highway, Gota, Ahmedabad-38248 1, Gujarat, India.

#### Design.

A randomised, single-dose, two-treatment, two-period, two sequence, crossover bioequivalence study was carried out under fasted conditions in 56 healthy male subjects, aged 25 - 36 years. Each subject received a single dose (40/5/12.5 mg tablet) of one of the two active substance formulations. The tablet was orally administered with 240 ml water after an overnight fast of at least ten hours. There were two dosing periods, separated by a washout period of 22 days.

#### **Analytical and statistical methods**

The analytical method has been adequately validated and is considered acceptable for analysis of the plasma samples.

The 90% confidence interval (90% CI) of the ratio of the test formulation to the reference formulation for the log-transformed values of Cmax and AUC was calculated using an ANOVA model. This model included the covariates sequence, period, formulation and subject nested to sequence. Bioequivalence was defined when the 90% CI of the ratios (test/reference) for Cmax and AUC was in the range 80.00 -125.00%.

The methods used in this study for the pharmacokinetic calculations and statistical evaluation are considered acceptable.

#### **Results**

56 subjects were dosed and 44 subjects completed the study and used in the statistical analysis according to the protocol.

The inclusion and exclusion criteria are considered acceptable for a bioequivalence study.

# **Descriptive statistics**

#### Olmesartan

# Descriptive Statistics of Formulation Means for Olmesartan (N = 44)

Parameters (Units)	Mean ± SD (untransformed data)				
	Test Product-T	Reference Product-R			
$T_{\text{max}}(h)^*$	2.000 (1.250 - 4.500)	2.250 (1.017 - 4.500)			
C <sub>max</sub> (ng/mL)	$1852.499 \pm 453.6721$	$1901.095 \pm 483.0652$			
AUC <sub>0-t</sub> (ng.h/mL)	$12306.110 \pm 3212.3058$	$12648.887 \pm 3215.7913$			
AUC₀-∞ (ng.h/mL)	$12449.048 \pm 3281.1301$	$12808.583 \pm 3341.6847$			
$\lambda_z$ (1/h)	$0.088 \pm 0.0150$	$0.089 \pm 0.0146$			
t <sub>1/2</sub> (h)	$8.193 \pm 1.9796$	$8.084 \pm 1.8899$			
AUC_%Extrap_obs (%)	$1.099 \pm 1.1133$	$1.113 \pm 1.2349$			

 $<sup>{}^*</sup>T_{max}$  is represented as median (min-max) value.

# Hydrochlorothiazide

# Descriptive Statistics of Formulation Means for Hydrochlorothiazide (N = 44)

Parameters (Units)	Mean ± SD (untransformed data)				
	Test Product-T	Reference Product-R			
$T_{\text{max}}(h)^*$	1.500 (0.750 - 4.000)	1.500 (1.000 - 3.500)			
C <sub>max</sub> (ng/mL)	$93.422 \pm 20.6261$	$93.324 \pm 27.0705$			
AUC <sub>0-t</sub> (ng.h/mL)	$621.541 \pm 142.0455$	$644.283 \pm 168.4212$			
AUC₀-∞ (ng.h/mL)	$641.360 \pm 141.1780$	$665.331 \pm 169.0912$			
$\lambda_z (1/h)$	$0.082 \pm 0.0114$	$0.082 \pm 0.0118$			
t <sub>1/2</sub> (h)	$8.598 \pm 1.1001$	$8.574 \pm 1.1107$			
AUC_%Extrap_obs (%)	$3.268 \pm 1.1651$	$3.324 \pm 1.2918$			

<sup>\*</sup>T<sub>max</sub> is represented as median (min-max) value.

# **S-Amlodipine**

# **Descriptive Statistics of Formulation Means for S-amlodipine (N = 44)**

_Parameters (Units)	Mean ± SD (untransformed data)				
	Test Product-T	Reference Product-R			
T <sub>max</sub> (h)*	6.000 (4.500 - 12.000)	6.000 (4.500 - 11.000)			
C <sub>max</sub> (ng/mL)	$1.719 \pm 0.2677$	$1.716 \pm 0.3471$			
AUC <sub>0-72</sub> (ng.h/mL)	$64.735 \pm 13.2173$	65.068 ± 13.1449			

<sup>\*</sup>T<sub>max</sub> is represented as median (min-max) value.

#### **R-Amlodipine**

# Descriptive Statistics of Formulation Means for R-amlodipine (N = 44)

_Parameters (Units)	Mean ± SD (untransformed data)				
	Test Product-T	Reference Product-R			
Tmax (h)*	6.009 (4.500 - 12.000)	6.000 (4.500 - 11.033)			
C <sub>max</sub> (ng/mL)	$1.556 \pm 0.2622$	$1.572 \pm 0.3586$			
AUC <sub>0-72</sub> (ng.h/mL)	51.439 ± 12.5711	52.045 ± 13.3472			

<sup>\*</sup>T<sub>max</sub> is represented as median (min-max) value.

# **Bioequivalence evaluation**

#### Olmesartan

# Relative Bioavailability Results for Olmesartan (N = 44)

	Geometric Least Squares Means			90%	Intua	
Parameters	Test Product-T	Reference Product-R	e Ratio Confide	Confidence Interval	Intra Subject CV (%)	Power (%)
$lnC_{max}$	1796.953	1842.435	97.5	90.16 - 105.50	22.2	99.8
lnAUC <sub>0-t</sub>	11913.563	12271.962	97.1	90.54 - 104.09	19.6	100.0
lnAUC₀-∞	12046.747	12411.027	97.1	90.56 - 104.03	19.5	100.0

#### Hydrocholothiazide

#### Relative Bioavailability Results for Hydrochlorothiazide (N = 44)

	Geometric Least Squares Means			90%	Intra	
Parameters	Test Product-T	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
lnC <sub>max</sub>	91.255	89.750	101.7	95.20 - 108.59	18.5	100.0
lnAUC <sub>0-t</sub>	606.084	623.479	97.2	92.85 - 101.77	12.8	100.0
lnAUC₀-∞	626.607	644.971	97.2	92.96 - 101.53	12.3	100.0

# **S-Amlodipine**

# Relative Bioavailability Results for S-amlodipine (N = 44)

	Geometric Least Squares Means			90%	Intra	
_Parameters	Test Product-T	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
$\ln C_{max}$	1.699	1.682	101.0	97.71 - 104.32	9.2	100.0
lnAUC <sub>0-72</sub>	63.497	63.841	99.5	96.77 - 102.23	7.7	100.0

#### **R-Amlodipine**

#### Relative Bioavailability Results for R-amlodipine (N = 44)

	Geometric Least Squares Means			90%	Intro	
_Parameters	Test Product-T	Reference Product-R	Ratio (T/R)%	Confidence Interval	Intra Subject CV (%)	Power (%)
lnC <sub>max</sub>	1.535	1.534	100.1	96.25 - 104.10	11.0	100.0
lnAUC <sub>0-72</sub>	50.048	50.393	99.3	95.33 - 103.46	11.5	100.0

Based on the submitted bioequivalence study, Olmesartan medoxomil/Amlodipine/HCT Accord 40 mg/5 mg/12.5 mg film-coated tablets, when compared with the Reference Product Sevikar HCT® 40 mg/5 mg/12.5 mg film-coated tablets in fasting condition seems to meet the bioequivalence criteria with respect to the Cmax and AUC.

#### Study code 1035-16

#### **GCP** compliance

The studies were conducted in accordance with Good Clinical Practice (GCP) standards. Monitoring reports and certificates of audits carried out by the Quality Assurance Unit are presented. The sites have been previously inspected by EU regulatory authorities.

#### Clinical and analytical facilities

Lambda Therapeutic Research Ltd. Lambda House, Plot No. 38, Survey No. 388, Near Silver Oak Club, S. G. Highway, Gota, Ahmedabad-38248 1, Gujarat, India.



#### Design

A randomised, single-dose, two-treatment, two-period, two sequence, crossover bioequivalence study was carried out under fasted conditions in 55 healthy male subjects, aged 25-42 years. Each subject received a single dose (40/5/25 mg tablet) of one of the two active substance formulations. The tablet was orally administered with 240 ml water after an overnight fast of at least ten hours. There were two dosing periods, separated by a washout period of 21 days.

# **Analytical and statistical methods**

The analytical method has been adequately validated and is considered acceptable for analysis of the plasma samples.

The 90% confidence interval (90% CI) of the ratio of the test formulation to the reference formulation for the log-transformed values of Cmax and AUC was calculated using an ANOVA model. This model included the covariates sequence, period, formulation and subject nested to sequence. Bioequivalence was defined when the 90% CI of the ratios (test/reference) for Cmax and AUC was in the range 80.00 -125.00%.

The methods used in this study for the pharmacokinetic calculations and statistical evaluation are considered acceptable.

#### **Results**

55 subjects were included in the study into two groups. 55 subjects were treated; 48 subjects completed the study and used in the statistical analysis according to the protocol. No group\*formulation interaction was observed.

The inclusion and exclusion criteria are considered acceptable for a bioequivalence study.

#### **Descriptive statistics**

#### Olmesartan

#### Descriptive Statistics of Formulation Means for Olmesartan (N = 48)

Parameters (Units)	Mean ± SD (untransformed data)				
	Test Product-T Reference Produc				
$T_{max}(h)^*$	2.009 (1.000 - 5.000)	2.009 (1.017 - 3.500)			
C <sub>max</sub> (ng/mL)	1548.645 ± 395.2122	1536.664 ± 330.9200			
$AUC_{0\text{-t}}\left(ng.h/mL\right)$	10940.056 ± 2857.2738	$10822.498 \pm 2876.0900$			
$AUC_{0\text{-}\infty}\left(ng.h/mL\right)$	11105.794 ± 2923.8848	$10976.080 \pm 2961.1388$			
λz (1/h)	$0.083 \pm 0.0173$	$0.084 \pm 0.0134$			
t <sub>1/2</sub> (h)	$8.737 \pm 2.0365$	8.481 ± 1.5183			
AUC_%Extrap_obs (%)	$1.429 \pm 1.0169$	$1.293 \pm 0.7899$			

<sup>\*</sup>Tmax is represented in median (min-max) value.

# Hydrochlorothiazide

# <u>Descriptive Statistics of Formulation Means for Hydrochlorothiazide (N = 48)</u>

Parameters (Units)	Mean ± SD (untransformed data)				
	Test Product-T	Reference Product-R			
$T_{max}\left(h\right)^{*}$	1.759 (0.750 - 4.000)	1.750 (0.750 - 3.500)			
C <sub>max</sub> (ng/mL)	211.798 ± 51.8177	209.497 ± 64.8298			
$AUC_{0\text{-t}}\left(ng.h/mL\right)$	1435.734 ± 338.8126	1407.918 ± 328.4534			
$AUC_{0\text{-}\infty}\left(ng.h/mL\right)$	$1470.075 \pm 350.0507$	1441.741 ± 340.5641			
λz (1/h)	$0.073 \pm 0.0068$	$0.074 \pm 0.0073$			
t½ (h)	$9.586 \pm 0.8854$	9.494 ± 0.9106			
AUC_%Extrap_obs (%)	$2.293 \pm 0.7229$	$2.297 \pm 0.7522$			

<sup>\*</sup>Tmax is represented in median (min-max) value.

# **S-Amlodipine**

# Descriptive Statistics of Formulation Means for S-amlodipine (N = 48)

_Parameters (Units)	Mean ± SD (untransformed data)				
	Test Product-T	Reference Product-R			
Tmax (h)*	8.509 (5.000 - 16.000)	8.009 (5.000 - 14.000)			
$C_{max} \ (ng/mL)$	$2.695 \pm 0.4560$	$2.736 \pm 0.5051$			
AUC <sub>0-72</sub> (ng.h/mL)	109.679 ± 19.1000	110.497 ± 21.4339			

 $<sup>^*</sup>T_{max}$  is represented in median (min-max) value.

# **R-Amlodipine**

# Descriptive Statistics of Formulation Means for R-amlodipine (N = 48)

Parameters (Units)	Mean ± SD (untransformed data)				
	Test Product-T	Reference Product-R			
Tmax (h)*	8.000 (3.000 - 11.000)	7.500 (3.000 - 14.017)			
C <sub>max</sub> (ng/mL)	$1.318 \pm 0.3252$	$1.327 \pm 0.3628$			
AUC <sub>0-72</sub> (ng.h/mL)	$45.070 \pm 14.4227$	44.597 ± 15.4840			

<sup>\*</sup>Tmax is represented in median (min-max) value.

# **Bioequivalence evaluation**

#### **Olmesartan**

# Relative Bioavailability Results for Olmesartan (N = 48)

	Geometric Least Squares Means			90%	Intra	
Parameters	Test Product-T	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
lnC <sub>max</sub>	1509.172	1509.555	100.0	94.58 - 105.67	16.3	100.0
lnAUC <sub>0-t</sub>	10604.269	10518.922	100.8	95.95 - 105.92	14.5	100.0
lnAUC0-∞	10762.027	10659.478	101.0	96.09 - 106.09	14.5	100.0

# Hydrochlorothiazide

# Relative Bioavailability Results for Hydrochlorothiazide (N = 48)

	Geometric Least Squares Means			90%	Intra	
Parameters	Test Product-T	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
lnCmax	202.588	198.289	102.2	95.69 - 109.09	19.3	100.0
lnAUC <sub>0-t</sub>	1412.555	1386.462	101.9	98.56 - 105.32	9.7	100.0
lnAUC0-∞	1446.193	1419.438	101.9	98.60 - 105.28	9.6	100.0

# **S-Amlodipine**

# Relative Bioavailability Results for S-amlodipine (N = 48)

	Geometric Least Squares Means		s Means	90%	Intra	
Parameters	Test Product-T	Reference Product-R	Ratio (T/R)%	Confidence Interval	Subject CV (%)	Power (%)
lnC <sub>max</sub>	2.665	2.692	99.0	96.13 - 101.96	8.6	100.0
lnAUC <sub>0-72</sub>	108.425	108.641	99.8	96.95 - 102.73	8.5	100.0

# **R-Amlodipine**

# Relative Bioavailability Results for R-amlodipine (N = 48)

	Geometric Least Squares Means			000/-	Turtura	
Parameters	Test Product-T	Reference Product-R	Ratio (T/R) %	90% Confidence Interval	Intra Subject CV (%)	Power (%)
$\ln C_{max}$	1.279	1.284	99.6	95.11 - 104.37	13.6	100.0
lnAUC0-72	42.843	42.450	100.9	96.05 - 106.05	14.5	100.0



Based on the submitted bioequivalence study, Olmesartan medoxomil/Amlodipine/HCT Accord 40 mg/5 mg/25 mg film-coated tablets, when compared with the Reference Product Sevikar HCT® 40 mg/5 mg/25 mg film-coated tablets in fasting condition seems to meet the bioequivalence criteria with respect to the Cmax and AUC.

#### Conclusion on bioequivalence studies:

Based on the submitted bioequivalence studies Olmesartan medoxomil/Amlodipine/HCT Accord is considered bioequivalent with Sevikar.

The results of studies 785-15, 0965-18, 0966-18 and 1035-16 with the 40/10/12.5 mg, 40/10/25, 40/5/12.5 mg and 40/5/25 mg formulation respectively can be extrapolated to the other strength 20/5/12.5 mg, according to conditions in *Guideline on the Investigation of Bioequivalence* CPMP/EWP/QWP/1401/98 Rev. 1/Corr\*, section 4.1.6.

## IV.3 Risk Management Plan

The MAH has submitted a risk management plan in accordance with the requirements of Directive 2001/83/EC as amended, describing the pharmacovigilance activities and interventions designed to identify, characterise, prevent or minimise risks relating Olmesartan medoxomil/Amlodipine/HCT Accord 20 mg/5 mg/12.5 mg, 40 mg/12

The summary of safety concerns proposed are the following:

Important identified risks	None
Important potential risks	None
Missing information	None

There are neither proposed additional pharmacovigilance activities nor proposed additional risk minimisation measures planned for olmesartan-amlodipine-hydrochlorothiazide.

#### IV.4 Discussion on the clinical aspects

For generic applications please refer to section IV.2.

# V. USER CONSULTATION

A user consultation with target patient groups on the package information leaflet (PIL) has been performed on the basis of a bridging report making reference to Sevikar HCT 20 mg/5 mg/12.5 mg, 40 mg/5 mg/12.5 mg, 40 mg/10 mg/12.5 mg, 40 mg/5 mg/25 mg, 40 mg/10 mg/12.5 mg, film-coated tablets (used as a basis for bridging "key safety messages"), and



Solifenacin succinate 5/10mg film-coated tablets (used as a basis for bridging "Design/layout"). The bridging report submitted by the applicant has been found acceptable.

Based on the above justification the daughter PIL is considered comparable with the parent PILs and assessed as readable in compliance with Articles 59(3) and 61(1) of Directive 2001/83/EC as amended.

# VI. OVERALL CONCLUSION, BENEFIT/RISK ASSESSMENT AND RECOMMENDATION

The quality of the generic product Olmesartan medoxomil/Amlodipine/HCT Accord is found adequate. There are no objections to the approval of Olmesartan medoxomil/Amlodipine/HCT Accord Edest from a non-clinical and clinical point of view. Bioequivalence between the test and reference product has been adequately demonstrated. The product information is acceptable. The benefit/risk is considered positive, and the application is therefore recommended for approval.

The results of studies 785-15, 0965-18, 0966-18 and 1035-16 with the 40/10/12.5 mg, 40/10/25, 40/5/12.5 mg and 40/5/25 mg formulation respectively can be extrapolated to the other strength 20/5/12.5 mg, according to conditions in *Guideline on the Investigation of Bioequivalence* CPMP/EWP/QWP/1401/98 Rev. 1/Corr\*, section 4.1.6.

# STEPS TAKEN AFTER THE FINALISATION OF THE INITIAL PROCEDURE - SUMMARY

Procedure number	Scope	Product Information affected	Date of end of procedure	Approval/ non	Summary/ Justification for refuse
ES/H/0623/001- 5/IA/001	Changes (Safety/Efficacy) to Human and Veterinary Medicinal Products Other variation	Yes	13-07-2020	approval Approved	N.A.
ES/H/0623/001- 5/IB/002	Introduction of, or change(s) to, the obligations and conditions of a marketing authorisation, including the risk management plan Other variation	No	07-12-2021	Approved	N.A.
ES/H/0623/001- 5/IA/003	Change(s) in the Summary of Product Characteristics, Labelling or Package Leaflet of human medicinal products intended to implement the outcome of a procedure concerning PSUR or PASS, or the outcome of the assessment done by the competent authority under Articles 45 or 46 of Regulation 1901/2006SmPCSmPC Implementation of wording agreed by the competent authority	Yes	15-02-2022	Approved	N.A.
ES/H/0623/001- 5/IA/004/G	Submission of a new or updated Ph. Eur. certificate of suitability or deletion of Ph. Eur. certificate of suitability: - For an active substance - For a starting material/reagent/interme diate used in the manufacturing process of the active substance - For an excipient European Pharmacopoeial Certificate of Suitability to the relevant Ph. Eur. Monograph.  • New certificate from an already	No	18-02-2022	Approved	N.A.

ES/H/0623/001- 5/IA/005	approved manufacturer New certificate from a new manufacturer (replacement or addition)  Other variation Update of SmPC and PIL information in- line with the wording of PRAC procedure	Yes	06-04-2022	Approved	N.A.
ES/H/0623/001- 5/IA/006	outcome  Change(s) in the Summary of Product Characteristics, Labelling or Package Leaflet of human medicinal products intended to implement the outcome of a procedure concerning PSUR or PASS, or the outcome of the assessment done by the competent authority under Articles 45 or 46 of Regulation 1901/2006SmPC  Implementation of wording agreed by the competent authority	Yes	05-08-2022	Approved	N.A.
ES/H/0623/001-5- IB/007	Change(s) in the Summary of Product Characteristics, Labelling or Package Leaflet of a generic/hybrid/biosimilar medicinal products following assessment of the same change for the reference product Implementation of change(s) for which no new additional data are submitted by the MAH	Yes	25-05-2023	Approved	N.A.
ES/H/0623/001- 5/IA/008	Change in the name and/or address of a manufacturer/importer of the finished product (including batch release or	No	22-12-2023	Approved	N.A.

	quality control testing				
	sites)				
	All other				
ES/H/0623/001- 5/IA/009	Change in the manufacturing process of the finished product, including an intermediate used in the manufacture of the finished product Minor change in the manufacturing process	No	19-01-2024	Approved	N.A.
ES/H/0623/004/I A/010	Change in the batch size (including batch size ranges) of the finished product Up to 10-fold compared to the originally approved batch size	No	29-01-2024	Approved	N.A.
ES/H/0623/004/I A/011/G	Replacement or addition of a manufacturing site for part or all of the manufacturing process of the finished product  Secondary packaging site Primary packaging site	No	08-04-2024	Approved	N.A.
ES/H/0623/001- 5/IA/012/G	Change in test procedure for active substance or starting material/reagent/interme diate used in the manufacturing process of the active substance  Minor changes to an approved test procedure	No	27-06-2024	Approved	N.A.
	Submission of a new or updated Ph. Eur. certificate of suitability or deletion of Ph. Eur. certificate of suitability: - For an active substance - For a starting material/reagent/interme diate used in the manufacturing process of the active substance - For an excipient European Pharmacopoeial Certificate of Suitability to	No			

FS/III/0522/004	the relevant Ph. Eur. Monograph. Updated certificate from an already approved manufacturer	No	00.00.2024		N.A
ES/H/0623/001- 5/R/001	Renewal	No	08-08-2024	Approved	N.A.
ES/H/0623/001- 5/IA/013/G	Change in the name and/or address of a manufacturer/importer of the finished product (including batch release or quality control testing sites)  All other	No	05-08-2024	Approved	N.A.
	Submission of a new or updated Ph. Eur. certificate of suitability or deletion of Ph. Eur. certificate of suitability: - For an active substance - For a starting material/reagent/interme diate used in the manufacturing process of the active substance - For an excipient European Pharmacopoeial Certificate of Suitability to the relevant Ph. Eur. Monograph.  Deletion of certificates (in case multiple certificates exist per material)	No			
ES/H/0623/001- 5/IB/014	Change in test procedure for active substance or starting material/reagent/interme diate used in the manufacturing process of the active substance  Other changes to a test procedure (including replacement or addition) for the active substance or a starting material/interme diate	Yes	27-03-2025	Not approved	Not available



ES/H/0623/001-	Other variation	Yes	07-02-2025	Approved	N.A.
5/IA/015	Update of SmPC and PIL				
	information in-line with				
	the wording of PRAC				
	procedure outcome				