

## MUSALI PAK

**Monograph No. – 010035 ver 3.0**

Issue No: 03

Date of Issue: 01/12/2022

Text Reference : Ayurveda Sara Sanghraha (Avaleha-Pak)

Amendment No : 00

Amendment Date : --

Shelf Life: 3 years

### Description

Light brown to dark brown colour granules with characteristic odour and taste.

### Loss on Drying at 105°

Not more than 10.0 % w/w

### Ash

Not more than 5.0 % w/w

### Acid Insoluble Ash

Not more than 3.0 % w/w

### Water Soluble Extractive

Not less than 50.0 % w/w

### Alcohol Soluble Extractive

Not less than 18.0 % w/w

### pH (1% aqueous solution)

5.0 – 7.0

### Bulk Density

0.5 – 1.0

### Elemental Assay

#### Sulphur (S)

Not less than 0.06 % w/w

#### Mercury (Hg)

Not less than 0.24 % w/w

#### Tin (Sn)

Not less than 0.08 % w/w

### Thin Layer Chromatography

#### Solvent system

Chloroform : Ethyl acetate : Formic acid  
( 5 : 4 : 1.6 )

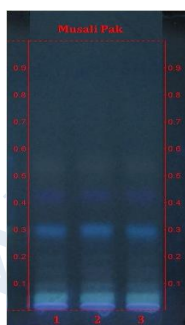
#### Details

Solvent of Extraction – Methanol

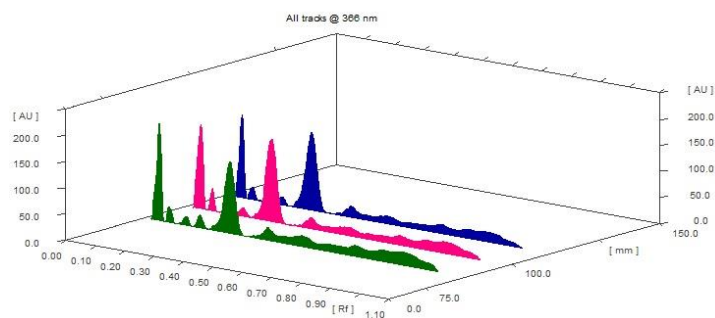
Solvent front – 90 mm

Total No. of Major spots – 6

Detection – Under UV at 366nm After spray with NP reagent



Major Spots	Colour	Approx. Rf.
1	Light blue	0.09
2	Light blue	0.14
3	Light blue	0.19
4	Sky blue	0.29
5	Blue	0.40
6	Gray	0.54



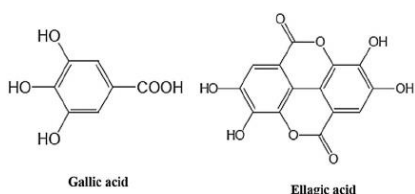
**3D Peak Display of Musali Pak at 366 nm**

**Confidential - photocopy prohibited**

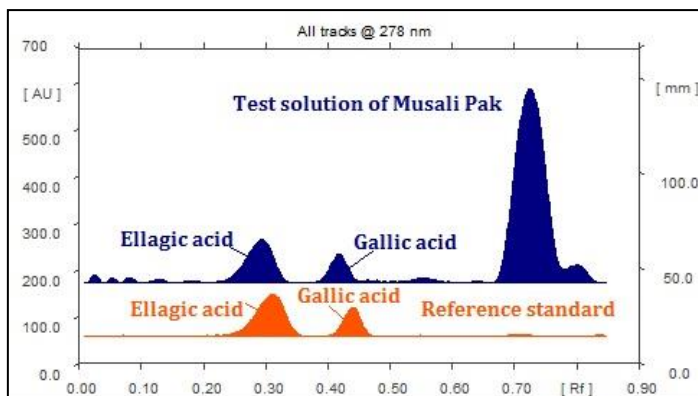
Note : † : These extra tests can be performed on every batch at extra cost. Tests can be ascertained on request.

## HPTLC Profile <sup>†</sup>

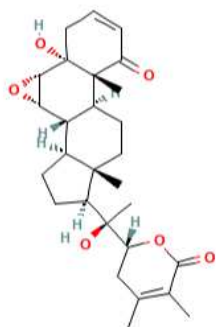
### i) Total Polyphenols (as Gallic acid & Ellagic acid)



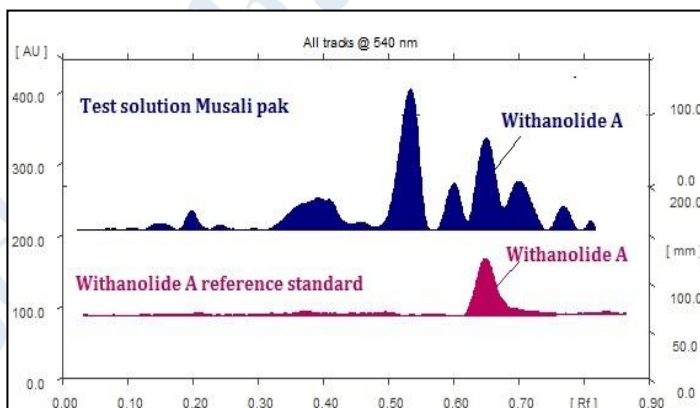
When examined in the range of 200 nm to 400 nm, the test solution shows absorption maxima at about 290 nm for Gallic acid & 278 nm for Ellagic acid corresponding with Gallic acid & Ellagic acid standard.



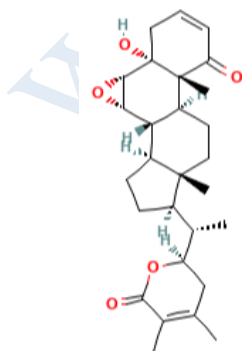
### ii) Withanolide A



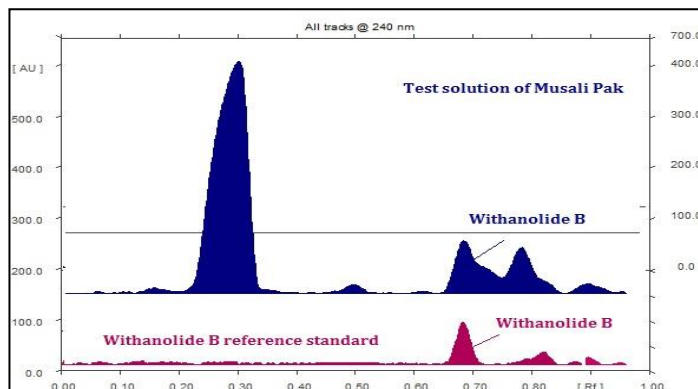
When examined in the range of 400 nm to 700 nm, the test solution shows absorption maxima at about 540 nm corresponding with Withanolide A standard.



### iii) Withanolide B

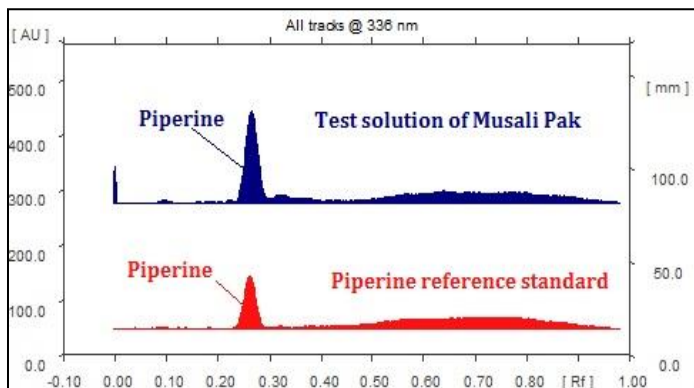
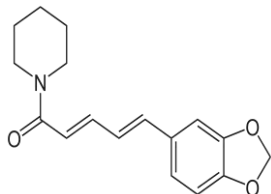


When examined in the range of 200 nm to 400 nm, the test solution shows absorption maxima at about 240 nm corresponding with Withanolide B standard.



## iv) Piperine

When examined in the range of 200 nm to 400 nm, the test solution shows absorption maxima at about 336 nm corresponding with piperine standard.



<b>E. coli</b>	Absent/g
<b>P. aeruginosa</b>	Absent/g
<b>Salmonella sp.</b>	Absent/g
<b>Staphylococcus sp.</b>	Absent/g
<b>Total Microbial plate count (TPC)</b>	NMT 10 <sup>5</sup> c.f.u./g
<b>Total Yeast &amp; Mold count (TYMC)</b>	NMT 10 <sup>3</sup> c.f.u./g
<b>Pesticide Residue<sup>†</sup> (OC+OP)</b>	Complies as per API
<b>Aflatoxins B1,B2,G1,G2<sup>†</sup></b>	Complies as per API