

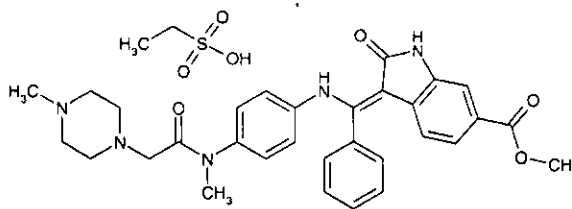
LC Laboratories®

CERTIFICATE OF ANALYSIS

Nintedanib, Ethanesulfonate Salt, >99%

(Nintedanib was Formerly Intedanib or Vargatef)

LC LABS CAT. NO. **N-9055**
FORMULA $C_{31}H_{33}N_5O_4 \bullet C_2H_6O_3S$
M.W. 649.76
CAS NO. [656247-18-6]
STORAGE: Store at or below -20 °C***
SOLUBILITY: Soluble in DMSO.



ANALYTICAL DATA

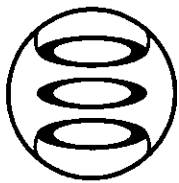
LOT NUMBER **NNE-107**
FORM Crystalline or amorphous solid; granular or powder
COLOR Yellow
HPLC PURITY >99% (see attached chromatogram)
TLC PURITY >99% (see attached chromatogram)
ELEMENTAL ANALYSIS For $C_{31}H_{33}N_5O_4 \bullet C_2H_6O_3S \bullet 0.4H_2O$:

<u>Calculated</u>	<u>Found</u>
C 60.33%	60.28%
H 6.11%	6.04%
N 10.66%	10.66%
S 4.88%	4.85%

***This product is stable at ambient temperature for several weeks during ordinary shipping and time spent in Customs or other delay. For long-term stability, store tightly closed at -20 °C.

Lot completion date: July 13, 2020

D:\COFA-BIZ\IN-Z-COFA\NNE107.WPD



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Cat. No. N-9055

Nintedanib, Ethanesulfonate Salt

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Lot NNE-107

>99%

RUN# 2940 JUL 11, 2020 18:00:08

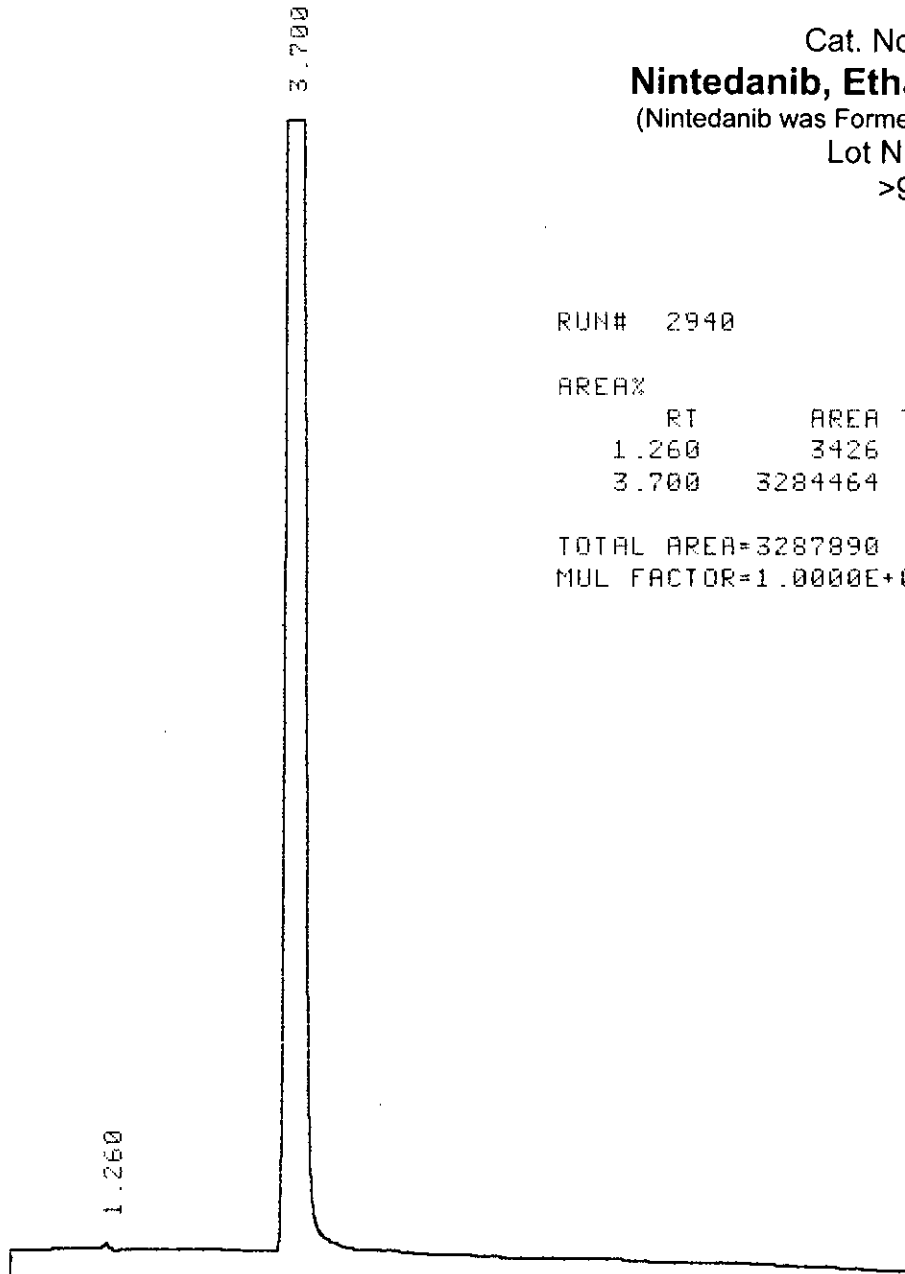
AREAX

RT	AREA	TYPE	WIDTH	AREAX
1.260	3426	BP	.114	.10420
3.700	3284464	PB	.159	99.89581

TOTAL AREA=3287890

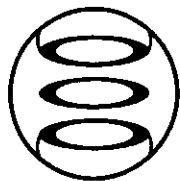
MUL FACTOR=1.00000E+00

*CAT. No. N-9055 NINTEDANIB, ESYLATE SALT LOT No. NNE-107
 * RUN # 2940 JUL 11, 2020 18:00:08
 START



TIMETABLE STOP

HPLC: C₁₈ Column, 4.6 mm x 30 cm
 Acetonitrile/Methanol/Water/Trifluoroacetic Acid 29/29/42/0.1
 2 mL/min
 UV₂₅₄ Detection



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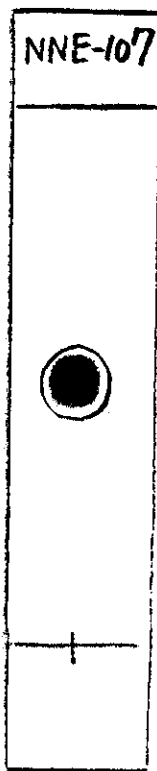
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Nintedanib, Ethanesulfonate Salt

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Lot NNE-107

>99%



- TLC: 60 Å silica gel plates with fluorescent indicator
- Develop with Chloroform/Methanol/conc. NH₄OH 86/14/1
- Visualize via UV fluorescence quenching
- Also visualize by exposure to iodine vapor