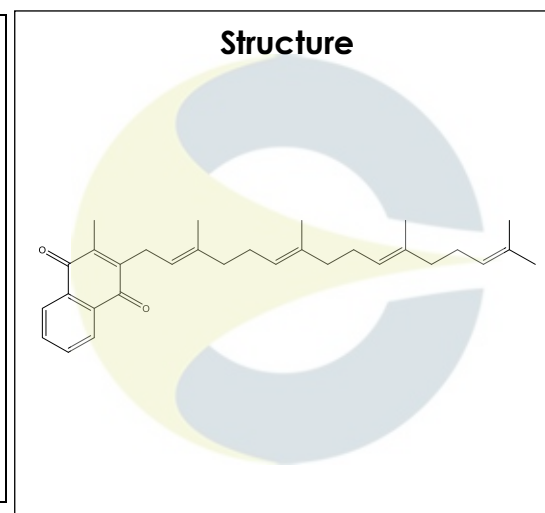


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PRODUCT NAME	Vitamin K2 (Menaquinone-4)
PART NUMBER	00022820
STANDARD TYPE	Analytical Standard (AS)
LOT NUMBER	00022820-171
REPORT NUMBER	CDXA-RSS-8016-01
SAMPLE NUMBER	CDXP-18-00377
DATE OF SAMPLE	04/24/2018
DATE OF RE-EVALUATION	01/18/2023
DATE OF REPORT	02/21/2023



CHEMICAL NAMES	2-Methyl-3-[(2E,6E,10E)-3,7,11,15-tetramethyl-2,6,10,14-hexadecatetraen-1-yl]-1,4-naphthalenedione; Menatetrenone; Vitamin MK 4
CHEMICAL FORMULA	C ₃₁ H ₄₀ O ₂
MOLECULAR WEIGHT (MW)	444.65
CHEMICAL FAMILY	Vitamins
CAS NUMBER	[863-61-6]
EC#(EINECS)	NA
RETECS	QL9279500

ANALYTICAL RESULTS

TEST	METHOD	SPECIFICATION	RESULT
HPLC	0.700.10.2.METH22	≥ 75%	99.9%
Mass Spectrum	99.1-04-3.0-000126	Conforms	Conforms
Appearance	NA	NA	Yellow powder

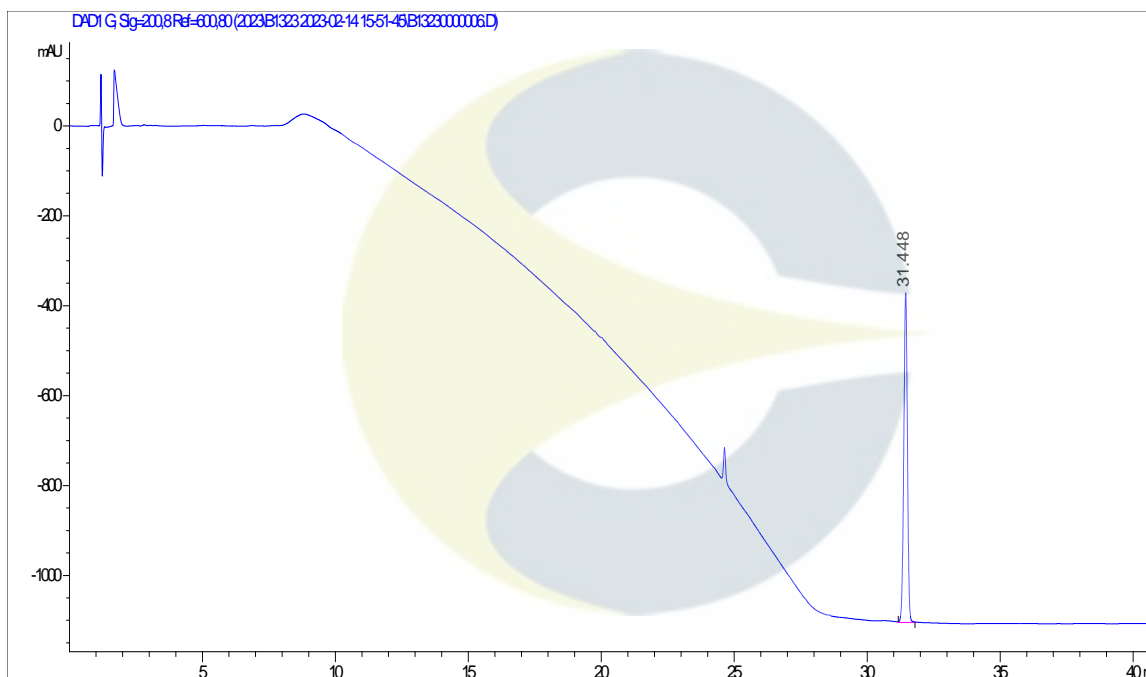
STORAGE CONDITIONS

STORAGE	-20 °C in a dry place.
EXPIRATION DATE	01/2028 under the above conditions.

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ANALYTICAL CONDITIONS

INSTRUMENT	AGILENT 1260 HPLC UV-VIS (DAD); AB-SCIEX 6600 TRIPLE TOF
COLUMN	Phenomenex Luna C18(2) 150 x 2.00 mm, 5 µm particle size
MOBILE PHASE	A - 0.1% Trifluoroacetic acid in Ultrapure water, B - Acetonitrile; Isocratic 5% B for 5 minutes, then increasing to 95% B over 20 minutes. Hold at 95% B for 15 minutes, then decreasing to 5% B over 1 minute.
COLUMN TEMP.	60 °C
FLOW RATE	0.4 mL/minute
INJECTION VOL.	0.4 µL
INJECTION CONC.	1.0 mg/mL in Acetone
DETECTION	200 ± 4 nm

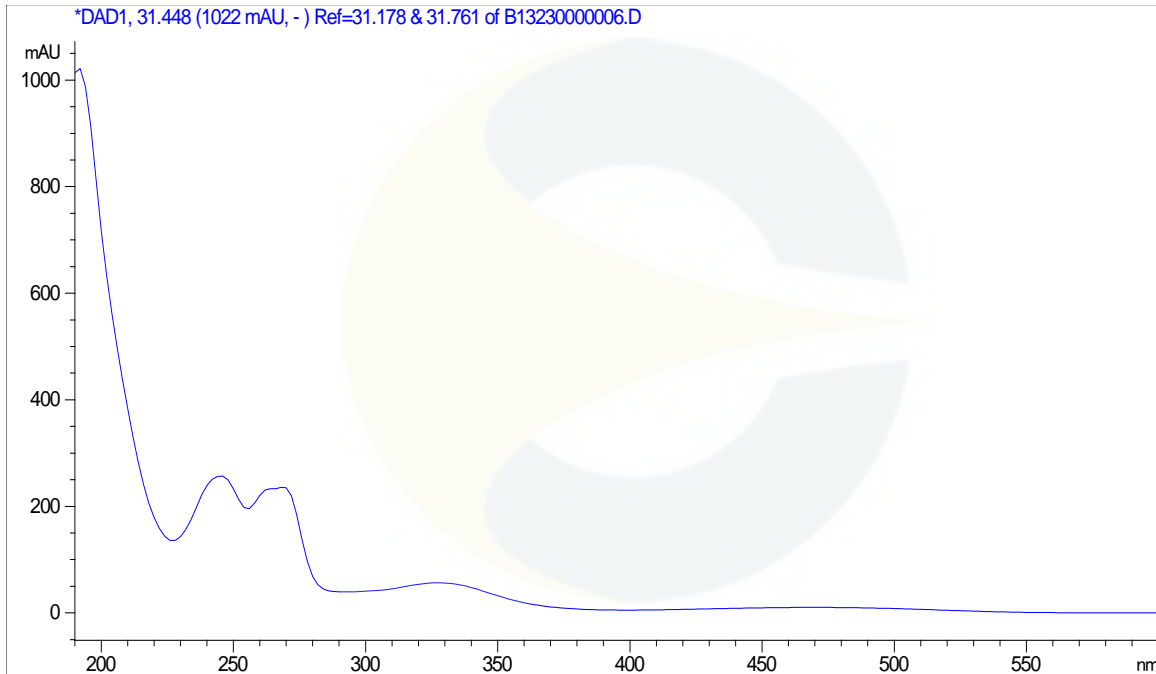
HPLC CHROMATOGRAM OF VITAMIN K2 (MENAQUINONE-4) (CDXP-18-00377)


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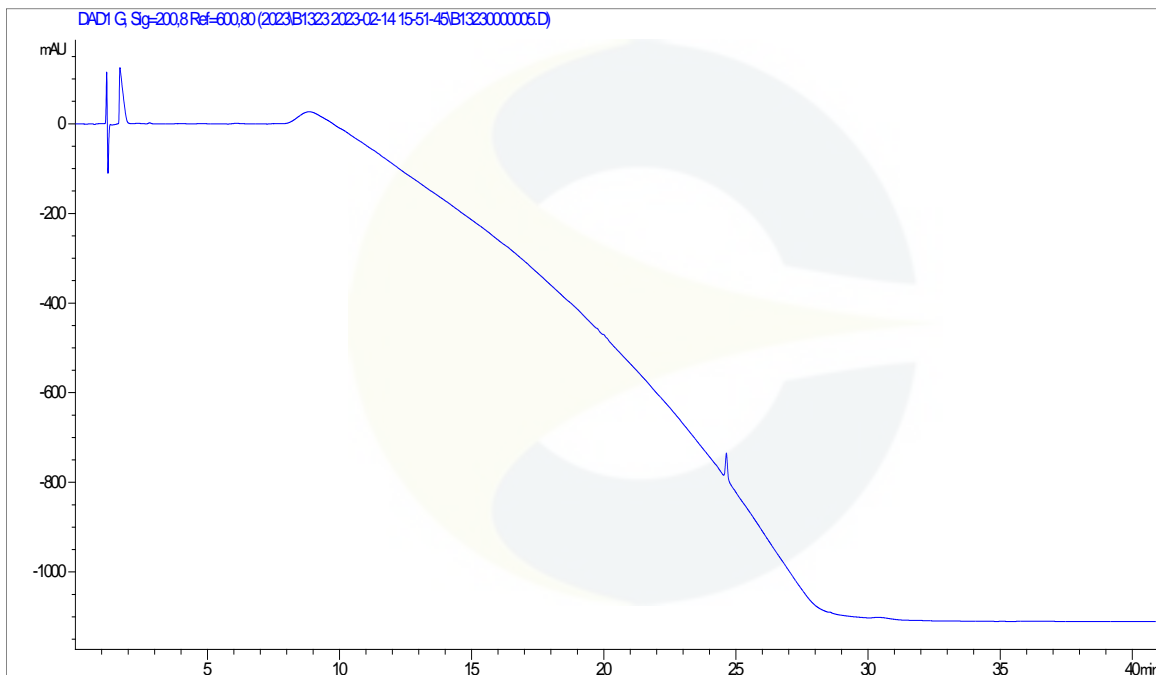
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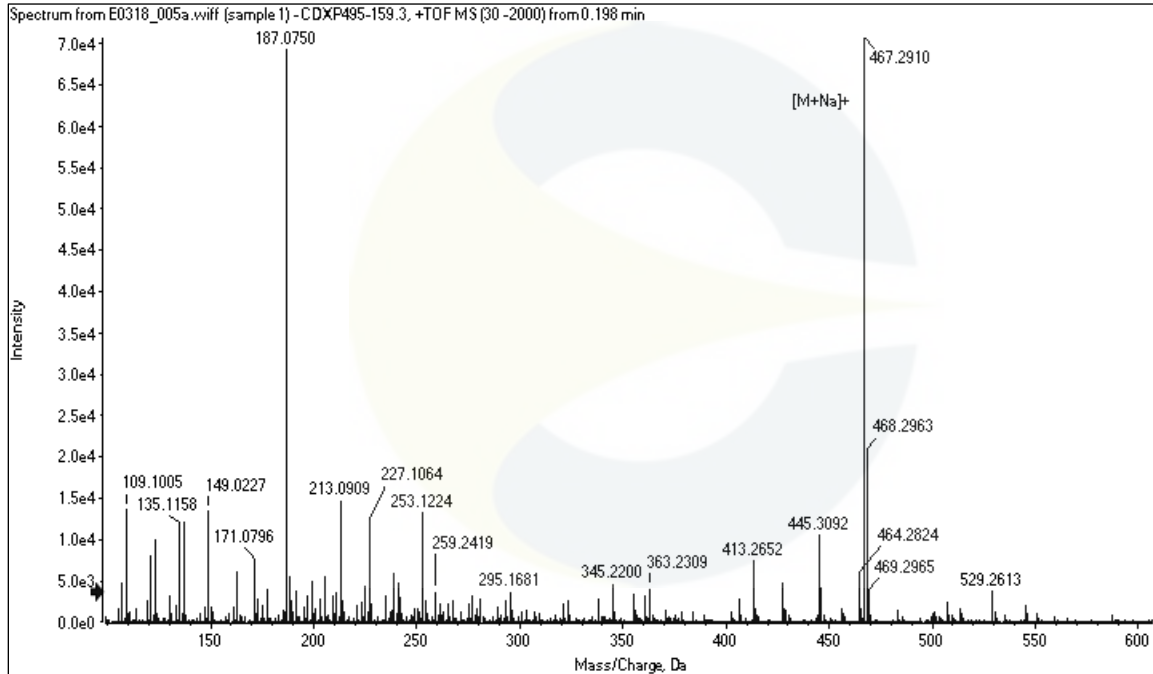
UV SPECTRUM AT RT = 31.4 MINUTES



HPLC CHROMATOGRAM OF DILUENT BLANK



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MASS SPECTRUM OF VITAMIN K2 (MENAQUINONE-4) (CDXP-18-00377)

REVISION HISTORY

<u>Revision History</u>	<u>Date of Revision</u>	<u>Document/Changes</u>
00	05/31/2018	New report
01	02/21/2023	Passed re-evaluation by HPLC. Updated expiration date, analytical results, analytical conditions, and chromatograms.

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