Amfepramone and Fenproporex

Amfepramone and Fenproporex Background

In 2017, Brazil passed a law *(Law 13.454/2017)* authorizing the production, sales, and consumption of three amphetamine-like anorectics: amfepramone (or diethylpropion), fenproporex, and mazindol, as well as sibutramine for treatment of obesity.

Brazil has also passed federal law *(Law 13.103)*, enacting hair drug testing for truck drivers as they renew their professional driver's licenses. The goal was reducing drug abuse among drivers and increasing highway safety. Stimulants, especially cocaine and amphetamine-based drugs, were cited as a concern for abuse in this industry. Amfepramone, fenproporex, and mazindol have become part of the routine screening panel based on high abuse rates among truck drivers, and the drugs' availability in Brazil.[2]

NEOGEN® has developed assays for the specific detection of amfepramone and fenproporex to meet testing needs in response to Brazil's laws.

Fenproporex Product Features

- Specific detection of fenproporex, without cross-reactivity for other amphetamine-based metabolites
- Sensitive detection of fenproporex, sufficient for hair applications and suitable for other forensic matrices including fingernails, urine, blood, and oral fluid

Fenproporex Cross-Reactivity:

Compound	Compound Concentration (ng/mL)	% Cross-Reactivity
Fenproporex	7.70	100%
(±)-MDEA	1750	0.44%
Fenfluramine	1800	0.43%
(±)-N-Desmethylselegiline	8000	0.09%
ß-MDEA (Ethylone)	8000	0.09%

NEOGEN offers a full panel of ELISA test kits to support the Brazilian Federal Law No. 13.103.

Assay Name	96-well Product #	480-well Product #	4800-well Product #
Amfepramone (Diethylpropion)	182119	182116	182113
Amphetamine Specific-2	132319-2	132315-2	132313-2
Cocaine*	140119	140115	140113
Fenproporex	182019	182016	182013
Mazindol/Mazindol Metabolite	102519	102516	102513
Methamphetamine/MDMA-2*	140219-2	140215-2	140213-2
Opiates*	140319	140315	140313
Synthetic Opiates*	140419	140415	140413
THC*	140619	140615	140613

**Not sold in the U.S.*

Amfepramone and Fenproporex

Amfepramone Product Features:

- Specific detection of amfepramone, without cross-reactivity for other amphetamine-based metabolites
- Sensitive detection of amfepramone, sufficient for hair applications and suitable for other forensic matrices including fingernails, urine, blood, and oral fluid

Amfepramone (Diethylpropion) Cross-Reactivity

Compound	Compound Concentration (ng/mL)	% Cross-Reactivity
Amfepramone (Diethylpropion)	1.02	100%
(+)-N,N-Diethylnorephedrine	140	0.73%
PCP	730	0.14%
4-Methylethcathinone	800	0.13%
Dextromethorphan	800	0.13%
Penicillin-G-Procaine	900	0.11%
(+)-Norpseudoephedrine	1000	0.10%
Trimipramine	1300	0.08%
Ethcathinone	1400	0.07%
Procaine	2000	0.05%
Chlorpromazine	2100	0.05%
Promazine	2400	0.04%
Acetopromazine	3100	0.03%
Hordenine	3100	0.03%
Methylene Blue	3100	0.03%
(±)-MDEA	3200	0.03%
Imipramine	3800	0.03%
Buproprion	4000	0.03%
Procainamide	4600	0.02%

References

1. Paumgartten, Francisco José Roma. The return of amphetamine-like anorectics: a backward step in the practice of evidence-based medicine in Brazil. Cad. Saúde Pública [online]. 2017, vol.33, n.10 [cited 2019-07-25], e00124817. Available from: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0102-311X2017001000301&lng=en&nrm=iso. Epub Oct 26, 2017. ISSN 1678-4464. http://dx.doi.org/10.1590/0102-311x00124817.
2. Jupe, Nicole. "Why Brazil Chose Hair Drug Testing." DATIA focus, Spring 2018, pp. 40-42. https://content.yudu.com/libraryHtml/A4395w/DATIAFocusSpring2018/reader.html?page=42&origin=reader

Call 800.477.8201 to order or visit NEOGEN.com

NEOGEN®
NEOGEN.com