

# HPLC Application

ID No.: 25864

## Fast Screening Method for 86 Forensic Analytes in Human Urine by LC-MS/MS

**Column:** Luna® 5 µm C18(2) 100 Å, LC Column 50 x 2 mm, Ea

**Dimensions:** 50 x 2 mm ID

**Order No:** 00B-4252-B0

**Elution Type:** Gradient

**Eluent A:** 5 mM Ammonium formate in water

**Eluent B:** 0.1 % Formic acid in methanol

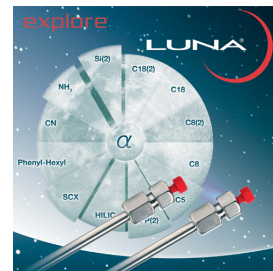
| Gradient Profile: | Step No. | Time (min) | Pct A | Pct B |
|-------------------|----------|------------|-------|-------|
|                   | 1        | 0          | 95    | 5     |
|                   | 2        | 1.8        | 5     | 95    |

**Flow Rate:** 0.2 mL/min

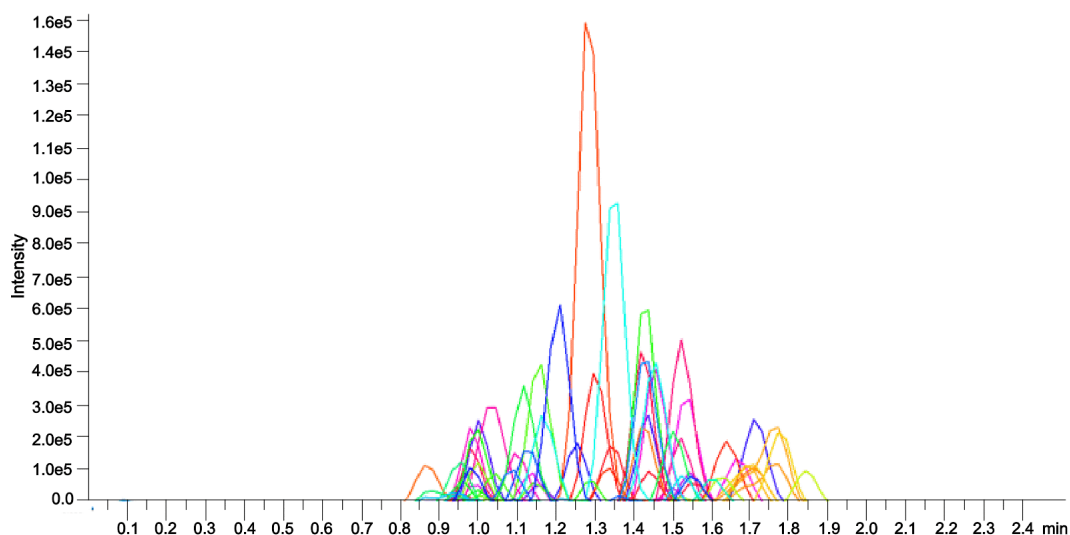
**Col. Temp.:** ambient

**Detection:** LC/MS/MS @ (ambient)

**Analyst Note:** Hydrolyze 100 µL urine by adding 25 µL IMCS RapidHydrolysis Buffer, 20 µL IMCSzyme, and 10 µL IS. All to hydrolyze for 30 to 60 min at 55 °C. After hydrolysis, add 0.8 mL of diluent to the mixture and centrifuge at 21,000 g for 15 min. Transfer supernatant to a glass vial with insert for analysis by LC-MS/MS.



Products used in this application:



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### ANALYTES:

|                                  |                                 |                          |
|----------------------------------|---------------------------------|--------------------------|
| <b>1</b> 6-MAM                   | <b>41</b> JWH-122 5-OH pentyl   | <b>81</b> Ritalinic Acid |
| <b>2</b> 7-Aminoclonazepam       | <b>42</b> JWH-210 5-OH pentyl   | <b>82</b> Sufentanil     |
| <b>3</b> 7-Hydroxymitragynine    | <b>43</b> JWH-250 4-OH pentyl   | <b>83</b> Tapentadol     |
| <b>4</b> Acetyl Fentanyl         | <b>44</b> Lorazepam             | <b>84</b> Temazepam      |
| <b>5</b> Alpha-Hydroxyalprazolam | <b>45</b> MDA                   | <b>85</b> Tramadol       |
| <b>6</b> Alpha-Hydroxymidazolam  | <b>46</b> MDEA                  | <b>86</b> Zolpidem       |
| <b>7</b> Alpha-Hydroxytriazolam  | <b>47</b> MDMA                  |                          |
| <b>8</b> Alpha-PPP               | <b>48</b> MDPV                  |                          |
| <b>9</b> Alpha-PVP               | <b>49</b> Meperidine            |                          |
| <b>10</b> Alprazolam             | <b>50</b> Mephedrone            |                          |
| <b>11</b> AM-2201 4-OH pentyl    | <b>51</b> Meprobamate           |                          |
| <b>12</b> Amitriptyline          | <b>52</b> Methadone             |                          |
| <b>13</b> Amphetamine            | <b>53</b> Methamphetamine       |                          |
| <b>14</b> Benzoylcegonine        | <b>54</b> Methedrone            |                          |
| <b>15</b> Buphedrone             | <b>55</b> Methylone             |                          |
| <b>16</b> Buprenorphine          | <b>56</b> Methylphenidate       |                          |
| <b>17</b> Carisoprodol           | <b>57</b> Midazolam             |                          |
| <b>18</b> Clomipramine           | <b>58</b> Mitragynine           |                          |
| <b>19</b> Codeine                | <b>59</b> Morphine              |                          |
| <b>20</b> Cotinine               | <b>60</b> Naloxone              |                          |
| <b>21</b> Cyclobenzaprine        | <b>61</b> Naltrexone            |                          |
| <b>22</b> Desalkylflurazepam     | <b>62</b> N-desmethyltapentadol |                          |
| <b>23</b> Desipramine            | <b>63</b> Norbuprenorphine      |                          |
| <b>24</b> Desmethyldoxepin       | <b>64</b> Norcodeine            |                          |
| <b>25</b> Dextromethorphan       | <b>65</b> Nordiazepam           |                          |
| <b>26</b> Diazepam               | <b>66</b> Norfentanyl           |                          |
| <b>27</b> Dihydrocodeine         | <b>67</b> Norhydrocodone        |                          |
| <b>28</b> Doxepin                | <b>68</b> Normeperidine         |                          |
| <b>29</b> EDDP                   | <b>69</b> Noroxycodone          |                          |
| <b>30</b> Fentanyl               | <b>70</b> Norpropoxyphene       |                          |
| <b>31</b> Gabapentin             | <b>71</b> Nortriptyline         |                          |
| <b>32</b> Hydrocodone            | <b>72</b> O-Desmethyltramadol   |                          |
| <b>33</b> Hydromorphone          | <b>73</b> Oxazepam              |                          |
| <b>34</b> Imipramine             | <b>74</b> Oxycodone             |                          |
| <b>35</b> JWH-018 4-OH pentyl    | <b>75</b> Oxymorphone           |                          |
| <b>36</b> JWH-018 pentanoic acid | <b>76</b> PCP                   |                          |
| <b>37</b> JWH-019 6-OH hexyl     | <b>77</b> Pregabalin            |                          |
| <b>38</b> JWH-073 3-OH butyl     | <b>78</b> Propoxyphene          |                          |
| <b>39</b> JWH-073 butanoic acid  | <b>79</b> Protriptyline         |                          |
| <b>40</b> JWH-081 5-OH pentyl    | <b>80</b> RCS4-4-OH-pentyl      |                          |

