

| <b>IMMUNOASSAY FALSE-POSITIVE – CAUSATIVE AGENTS</b> |   |
|--|---|
| <b>Substance tested via immunoassay</b>              | <b>Agents which may precipitate false-positive result</b>   |
| <b>Alcohol</b>                                       | Short-chain alcohols (eg, isopropyl alcohol)  |
| <b>Amphetamines</b>                                  | Amantadine<br>Benzphetamine<br>Bupropion<br>Chlorpromazine<br>Clobenzorex<br>l-Deprenyl<br>Desipramine<br>Dextroamphetamine<br>Ephedrine<br>Fenproporex<br>Isometheptene<br>Isoxsuprine<br>Labetalol<br>MDMA <sup>a</sup>                           |
|  | Methylphenidate<br>Phentermine<br>Phenylephrine<br>Phenylpropanolamine<br>Promethazine<br>Pseudoephedrine<br>Ranitidine<br>Ritodrine<br>Selegiline<br>Thioridazine<br>Trazodone<br>Trimethobenzamide<br>Trimipramine<br>Vick's inhaler <sup>b</sup> |
| <b>Benzodiazepines</b>                               | Oxaproxin<br>Sertraline   |
| <b>Canabinoids</b>                                   | Dronabinol<br>Efavirenz<br>Hemp-containing foods<br>NSAIDs <sup>a</sup><br>Proton pump inhibitors<br>Tolmetin   |
| <b>Cocaine</b>                                       | Coca leaf tea<br>Topical anesthetics containing cocaine   |
| <b>Opioids, opiates, and heroin</b>                  | Dextromethorphan<br>Diphenhydramine <sup>c</sup><br>Poppy seeds<br>Quinine<br>Quinolones<br>Rifampin<br>Verapamil and metabolites <sup>c</sup>  |
| <b>Phencyclidine</b>                                 | Dextromethorphan<br>Doxylamine<br>Ibuprofen<br>Imipramine<br>Ketamine   |
|  | Meperidine<br>Mesoridazine<br>Thioridazine<br>Tramadol<br>Venlaxaxine, desvenlafaxine   |
| <b>Tricyclic antidepressants</b>                     | Carbamazepine <sup>d</sup><br>Cyclobenzaprine <sup>d</sup><br>Cyproheptadine <sup>d</sup><br>Diphenhydramine <sup>d</sup><br>Hydroxyzine <sup>d</sup><br>Quetiapine <sup>d</sup>  |

<sup>a</sup>MDMA = methylenedioxymethylamphetamine, NSAID = nonsteroidal anti-inflammatory drug

<sup>b</sup>Newer immunoassays have corrected the false positive result for Vick's inhaler

<sup>c</sup>Diphenhydramine and verapamil (including metabolites) have been shown to cause positive results in methadone assays only

<sup>d</sup>Reports of false-positive results occurred with serum only, i.e., will not impact urine drug screens