



™ Toxicology Services



Master Cross-Reaction List

Immunoassay and Cross-Reactants

Immunoassay-based screening methods provide high sensitivity but may be susceptible to specificity issues. Cross-reactivity of structurally similar substances may occur with immunoassay methodologies, potentially yielding false results.

Immunoassay manufacturers test for common potential interfering substances and list those results in package inserts; however, testing every compound is not feasible. High doses of a single drug or concurrent dosing of multiple drugs may significantly influence urine immunoassay results. These clinical scenarios are difficult to replicate in a bench setting during the immunoassay development process and, as such, may only become known once the assay is introduced to the market.

The attached contains potential reactants and cross-reactants with most immunoassay methodologies. This list is not all inclusive. Other substances and/or technical or procedural factors may interfere with the test and cause false results. For the most current information relative to the immunoassay testing methodology utilized at your facility, refer to the package insert provided by the manufacturer of your kits or contact your manufacturer directly.

All positive results from onsite drug testing are presumptive and should be confirmed by a laboratory using an alternative methodology such as Liquid Chromatography / Mass Spectroscopy (LC/MS) or Gas Chromatography / Mass Spectrometry (GC/MS).

Potential Immunoassay Reactants and Cross-reactants

COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS
Abacavir	Ziagen	Non-reactive
Acamprosate	Campral	Non-reactive
Acetaminophen (See also Paracetamol)	Aceta, Acephen, Apacet, Dapacen, Feverall, Tylenol, Excedrin (Combination), Panadol, Tempura	Non-reactive
Acetaminophen with Codeine (see also Paracetamol with codeine)	Tylenol 3, Tylenol with codeine	Positive for Opiates (OPI, MOR)
Acetic Acid	Ethanoic Acid	Non-reactive
Acetophenetidin	Phenacetin	Non-reactive
Acetylsalicylic acid	Aspirin, Anadin, Anasin, Bufferin, Caprin, Disprin, Ecotrin, Empirin, Excedrin (combination)	Non-reactive
Aciclovir	Zovirax	Non-reactive
Adinazolam	Deracyn	Non-reactive
Albuterol (salbutamol)	Aerocrom, Aerolin, Airomir, Asmasal, Combivent, Duovent, Ventide, Ventodisks, Ventolin, Volmax	Non-reactive
Allobarbital	No known trade names	Positive for Barbiturates (BAR)
Alphenol	No known trade names	Positive for Barbiturates (BAR)
Alprazolam	Xanax	Positive for Benzodiazepines (BZO)
Aluminum Chloride Hexahydrate	Drichlor, Anhydrol Forte	Non-reactive
Aluminum Hydroxide	Alu-Cap, Alisone, Gastrocote, Kolanticon, Maalox, Maalox TC, Mucogel, Pyrogastrone, Topal	Non-reactive
Alverine Citrate	Spasmonal, Spasmonal Fibre	Non-reactive
Amitriptyline	Elavil, Lentizol, Tryptizol, Triptafen, Triptafen-M	Positive for Tricyclic Antidepressants (TCA)
Amlodipine	Caduet, Norvasc	Non-reactive
Ammonia/Ipecacuanha	Ipecac	Non-reactive
Amobarbital	Amytal, Tuinal	Positive for Barbiturates (BAR)
Amoxicillin or Amoxycillin	Amoxil, Amoram, Augmentin, Heliclear	Non-reactive
Ampicillin	Penbritin, Polycillin, Principen	Non-reactive
Amylmetacresol	Strepsils	Non-reactive
Anhydrol forte		Non-reactive
Antabuse	Disulfiram	Non-reactive
Antazoline Sulphate	Otrivine-Anistin	Non-reactive
Antipyrine	4-Dimethylaminoantipyrine	Non-reactive
Aprobarbital		Positive for Barbiturates (BAR)
Aspirin	Bayer Aspirin, Excedrin, ASA, Angettes, Asasantin, Caprin	Non-reactive
Atenolol	Beta-adlat, Co-tenidone, Kaltan, Tenben, Tenif, Tenoret 50, Tenorectic, Tenormin	Non-reactive
Atorvastatin	Lipitor	Non-reactive
Azlocillin	Securopen	Non-reactive
Baclofen	Lioresal, Kemstro	Non-reactive
Barbital		Positive for Barbiturates (BAR)
Beclometasone	AeroBec, AeroBec Forte, Asmabec, Beclazone, Becloforte, Becodisks, Beconase, Becotide, Fillair, Nasobec, Qvar, Ventide, Zonivent	Non-reactive
Bendrofluazide	Aprinox, Cogaretic, Indertic, Inderex, Neo-Naclax, Neo-Naclax-K, Prestim, Tenben	Non-reactive
Benzalkonium	Bradosol	Non-reactive
Benzocaine	Americaine, Merocaine	Non-reactive
Benztropine	Cogentin	Non-reactive
Benzylamine	Diffiam	Non-reactive
Benzylpenicillin	Crystapen	Non-reactive
Bromazepam	Lexotan	Positive for Benzodiazepines (BZO)
Bromopheniramine	Dimetapp, Dimotapp, Dimotane	Non-reactive

COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS
Budesonide	Entocort, Pulmicort, Rhinocort	Non-reactive
Buprenorphine	Subutex, Suboxone, Temgesic	Positive for Buprenorphine (BUP)
Bupropion	Wellbutrin, Zyban	Non-reactive
Butabarbital	Butisol, Soneryl	Positive for Barbiturates (BAR)
Butalbital	Fioricet, Fiorinal	Positive for Barbiturates (BAR)
Butethal		Positive for Barbiturates (BAR)
Canestan	Canestan ear/skin/vaginitis/HC	Non-reactive
Carbamate	Pesticide	Non-reactive
Carbamazepine	Tegretol, Teril, Timonil	Non-reactive
Carisoprodol	Soma	Non-reactive
Celecoxib	Celebrex	Non-reactive
Cephalexin	Ceporex, Keflex	Non-reactive
Cetirizine	Zyrtec	Non-reactive
Cetylpyridinium	Cepacol mouth rinse	Non-reactive
Chloral Hydrate	Welldorm	Non-reactive
Chlorazepate	Tranxene	Positive for Benzodiazepines (BZO)
Chlordiazepoxide	Librium	Positive for Benzodiazepines (BZO)
Chlorhexidine Gluconate	Bactrigas, Cordsodyl, Chlorohex, CX Powder, Dermol, Hibicet, Hibiscrub, Hibisol, Hibitane, Instillagel, Naseptin, Nystaform, Serotulle, Steripod, Tisept, Unisept, Uriflex, Uro-Trainer	Non-reactive
Chloroform		Non-reactive
Chlorpheniramine Maleate	Galpseud, Haymine, Piriton	Non-reactive
Chlorpromazine	Largactil	Non-reactive
Chlorprothixene	Cloxan, Fluanxol, Taractan, Truxal	Non-reactive
Cimetidine	Dyspamet, Tagamet, Zita	Non-reactive
Cinnarizine	Stugeron	Non-reactive
Ciprofloxacin	Cipro	Non-reactive
Citalopram	Cipramil	Non-reactive
Clobazam	Frisium	Positive for Benzodiazepines (BZO)
Clofibrate	Atromid-S	Non-reactive
Clomethazole	Chlormethiazole, Heminevrin	Non-reactive
Clonazepam	Clonopin, Klonopin, Rivotril	Positive for Benzodiazepines (BZO)
Clotrimazole	Lotrimin, Lotrisone, Mycelex	Non-reactive
Clozapine	Clozaril, Clopine, Zaponex	Non-reactive
Co-Amoxiclav	Augmentin, Augmentin Duo	Non-reactive
Co-danthramar	Dantron	Non-reactive
Codeine Phosphate	Codafen Continus, Codeine Linctus, Pediatric BP, Galcodine, Kapake, Migraleve, Solpadol, Tylex	Positive for Opiates (OPI/MOR)
Co-Fluampicil	Magnapen	Non-reactive
Combivir	Epivir	Non-reactive
Co-Phenotrope (atropine/diphenoxylate)	Lomotil, Trepergen	Non-reactive
Co-Trimoxazole		Non-reactive
Cyclobenzaprine	Flexeril	Positive for Tricyclic Antidepressants (TCA)
Cyclosporin	Neoral	Non-reactive
Cyprohetadine	Periactin	Positive for Tricyclic Antidepressants (TCA)
Cyproterone	Androcur, Cyprostat, Nioproxil, Progynova, Siterone	Non-reactive
d/l-Octopamine	No known trade names	Non-reactive
Dantrolene		Non-reactive
Delorazepam	Briantum	Positive for Benzodiazepines (BZO)
Dequalinium	Dequadin	Non-reactive
Desmopressin	DDAVP, Minirin, Stimat	Non-reactive
Dexamethasone	Decadron, Dexamethasone Nasal Spray Duo, Maxidex, Maxidrol, Minims, Otomize, Sofradex	Non-reactive
Dexamphetamine Sulphate	Adderall, Adderall XR, Dexedrine	Positive for Amphetamine (AMP)
Dextropropoxyphene	Darvon, Darvocet, Co-proximal	Positive for Propoxyphene (PPX)
Diazepam	Diazemuls, Stesolid, Valclair, Valium	Positive for Benzodiazepines (BZO)
Diclofenac Sodium	Dicloflex, Diclomax, Motifene, Voltaman, Volsaid, Voltarol	Non-reactive

COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS
Dicyclomine	Kolanticon, Merbentyl	Non-reactive
Didanosine	Videx	Non-reactive
Dihydrocodeine	DHC Continus, Paramol, Remedeine, Remedeine Forte	Positive for Opiates (OPI/MOR)
Diltiazem	Cardizem, Dilacor, Tiazac	Non-reactive
Dimethicone	Asilone, Fancorsil	Non-reactive
Diphenoxylate with Atropine	Lomotil	Non-reactive
Diphenhydramine	Benadryl, Medinex, Nytol, Panadol Night	Non-reactive
d-Methamphetamine HCL	Desoxyn, Methedrine, Methamprex	Positive for Methamphetamine (mAMP)
Docusate Sodium		Non-reactive
Donepezil	Aricept	Non-reactive
Dopamine	Intropin	Non-reactive
Dothiepin	Prothiaden	Positive for Tricyclic Antidepressants (TCA)
Doxepin	Sinequan, Xepin	Positive for Tricyclic Antidepressants (TCA)
Doxycycline	Vibramycin, Vibramycin-D	Non-reactive
Doxylamine	Nyquil	Positive for Methadone (MTD)
Droperidol	Dridol, Droleptan, Inapsine	Non-reactive
Duloxetine	Cymbalta	Non-reactive
Efavirenz	Sustiva	Positive for Cannabinoids (THC) [Urinary metabolite(s) only; parent compound is non-reactive]
Enoxaparin	Clexane, Lovenox	Non-reactive
Erythromycin	Arpimycin, Benzymycin, Erycane, Erymax, Erythrocin, Erythroped, Ilosone, Isotrexin, Lactobinate, Stiemycin, Tiloryth, Zineryl	Non-reactive
Estazolam	ProSom	Positive for Benzodiazepines (BZO)
Ethambutol	Myambutol	Non-reactive
Ethylmorphine		Positive for Opiates (OPI/MOR)
Fenofibrate	Tricor	Non-reactive
Ferrous Fumarate	Iron	Non-reactive
Flucloxacillin	Co-fluampicil, Floxapen, Magnapen	Non-reactive
Flumazenil	Romazicon	Non-reactive
Flunitrazepam	Rohypnol	Positive for Benzodiazepines (BZO)
Fluoxetine	Prozac, Sarafem	Non-reactive
Flupentixol Decanoate	Depixol, Fluaxol	Non-reactive
Fluphenazine	Prolixin	Non-reactive
Flurazepam	Dalmane	Non-reactive
Folic Acid		Non-reactive
Fusidic Acid (Sodium Fusidate)	Fucithalamic, Fucibet, Fucidin	Non-reactive
Gamma-Hydroxybutyrate	GHB	Non-reactive
Gemfibrozil	Gemcor, Lopid	Non-reactive
Gentamicin Sulphate	Cidomycin, Genticin, Gentisone	Non-reactive
Gliclazide	Diamicron, Dianorm	Non-reactive
Halazepam	Alapryl, Paxipam, Pacinone	Positive for Benzodiazepines (BZO)
Haloperidol	Haldol	Non-reactive
Hepatitis B Vaccine		Non-reactive
Hydrochlorothiazide	Hyzaar, Losartan	Non-reactive
Hydrocodone	Lorcet, Loratab, Vicodin	Positive for Opiates (OPI/MOR) and/or Oxycodone (OXY)
Hydrocortisone	Actinac, Alphaderm, Alphasyl-HC, Anugesic-HC, Anusol-HC, Calmurid-HC, Canesten-HC, Colioam, Daktacort, Dioderm, Econacort, Efortelan, Efcortesel, Eurax-HC, Gregoderm, Hydrocortistab, Hydrocortone, Mildison lipocream, Neo-cortef, Nystaform, Perinal, Proctofoam, Quinocort, Terra-cortil, Timodine, Uniroid-HC, Vioform-HC, Xyloproct	Non-reactive
Hydrocortisone-17-butyrate	Locoid, Locoid C	Non-reactive
Hydromorphone	Dilaudid, Hydrostat	Positive for Opiates (OPI/MOR) and/or Oxycodone (OXY)
Hydroxocobalamin	Vitamin B-12	Non-reactive
Hydroxychloroquine	Plaquenil	Non-reactive

COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS
Hydroxyzine	Atarax, Ucerax	Non-reactive
Hyoscine butylbromide	Buscopan, Scopoderm	Non-reactive
Ibuprofen	Brufen, Codafen, Fenbid, Ibugel, Ibuspray, Motrin, Proflex	Non-reactive
Indomethacin	Flexin continus, Indocid, Indomod	Non-reactive
Interferon Alfa	Intron A, Roferon-A, Viraferon, Wellferon	Non-reactive
Isoniazide	INH	Non-reactive
Isosorbide Dinitrate	Angitak, Cedocard, Isocard, Isoket, Isordil, Sorbichew, Sorbitrate, Sorbid SA	Non-reactive
Ketoprofen	Orudis, Oruvail, Powergel	Non-reactive
Koalin and Morphine Mixture	Diocalm, Entersan, Opazimes	Positive for Opiates (OPI/MOR)
Lactulose	Duphalec, Lactugal	Non-reactive
Lamotrigine	Lamitcal	Positive for Phencyclidine (PCP)
Lansoprazole	Heliclear, Zoton	Non-reactive
Lisinopril	Carace, Zestril, Zestoretic	Non-reactive
l-Methamphetamine HCL	Vick's Inhaler	Positive for Methamphetamine (mAMP)
Lofepamine	Gamanil, Lomont	Positive for Tricyclic Antidepressants (TCA)
Lofexidine	Britoflex	Non-reactive
Loperamide	Imodium, Loperagen, Norimide	Non-reactive
Loratadine	Claritin	Non-reactive
Lorazepam	Ativan	Positive for Benzodiazepines (BZO)
Lormetazepam	Noctamide	Positive for Benzodiazepines (BZO)
Magnesium Alginate	Gaviscon	Non-reactive
Mannitol	Gaviscon	Non-reactive
Medazepam	Anxitol, Lerisum, Medacepan, Nobritol, Nobrium	Positive for Benzodiazepines (BZO)
Mefenamic Acid	Ponstan, Ponstel	Non-reactive
Meperidine	Demerol, Pethidine	Non-reactive
Methadone Hydrochloride	Dolophine, Methadose, Phisetone	Positive for Methadone (MTD)
Methylenedioxyamphetamine (MDA)	Eve (slang), Love Drug (slang)	Positive for Amphetamine (AMP) and Ecstasy (MDMA)
Methylenedioxymethamphetamine (MDMA)	Adam (slang), Ecstasy (slang), XTC (slang)	Positive for Methamphetamine (mAMP) and Ecstasy (MDMA)
Methylenedioxymethamphetamine (MDMA)	E (slang)	Positive for Methamphetamine (mAMP) and Ecstasy (MDMA)
Metoclopramide	Reglan	Non-reactive
Metronidazole	Anabact, Elyzol, Flagyl, Metrogel, Metrolyl, Metrotop, Neuratop, Noritate, Rozex, Zidoval, Zymoet	Non-reactive
Morphine	Astramorph, Cyclimorph, Duramorph, Morcap, Morphine Sulfate, MS Contin, Oramorph, Roxanol, Severedol	Positive for Opiates (MOR, OPI)
Nadolol	Corgard, Corgaretic, Corgartic	Non-reactive
Naloxone	Narcan	Non-reactive
Naltrexone	Antaxone, Nalorex, Trexan	Non-reactive
Naproxen	Aleve, Condrotec, Napratec, Naprosen, Naprosyn, Nycopren, Synflex	Non-reactive
Nicotine	Nicoderm, Nicorette, Nicotinell, Nicotrol, Niquitin	Non-reactive
Nifedipine	Adalat, Nifecard, Nifar, Nif-ten, Procardia	Non-reactive
Nitrazepam	Mogadon, Somnite	Positive for Benzodiazepines (BZO)
Norethindrone	BiNovum, Brevinor, Climagest, Climesse, Elleste Duet, Estracombi, Evorel, Kliofem, Kliovance, Loestrin, Micronor, Norlutin, Noriday, Norimin, Norinyl, Noristat, Nouvelle, Ovysmen, TriNovum, Trisquens, Utovian	Non-reactive
Noscapine	Narcotine	Non-reactive
Olanzapine	Zyprexa	Non-reactive
Orphenadrine	Disipil, Norflex, Norgestic	Non-reactive
Oxazepam	Ox-pam, Serax	Positive for Benzodiazepines (BZO)
Oxymetazoline	Afrin, Neo-synephrine	Non-reactive
Oxytetracycline	Terra-Cortil, Terramycin, Trimovate	Non-reactive
Paracetamol (Acetaminophen)	Fortagesic, Paradote	Non-reactive
Paracetamol (Acetaminophen) /Codeine Preparations	Co-codamol, Codafen, Co-dydramol, Kapake, Remedine, Solpadol, Tylenol 3, Tylex	Positive for Opiates (MOR, OPI)

COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS
Paroxetine	Paxil, Seroxat	Non-reactive
Penicillin	Combicillin, Mefoxin	Non-reactive
Pentobarbital	Nembutal	Positive for Barbiturates (BAR)
Pericyazine	Amplan, Aolept, Apamin, Iryakin, Nemactil, Neulactil, Propetyl, Psycholept	Non-reactive
Phenobarbital	Donnatal	Positive for Barbiturates (BAR)
Phenobarbitone (see also Phenobarbital)	Luminal	Positive for Barbiturates (BAR)
Phenytoin	Dilantin, Epanutin, Eptard	Possible Positive for Barbiturates (BAR) Urinary metabolite(s) only; parent compound is non-reactive
Pholcodine	Galenphol, Strong BP, Pavacol-D, Thebacon	Positive for Opiates (MOR, OPI)
Piperacillin	Pipracil, Tazobactam	Non-reactive
Prazepam	Centrax, Demetrin	Positive for Benzodiazepines (BZO)
Prednisolone	Delta-cortef, Econopred, Inflamase, PEDIAPRED, Prelone	Non-reactive
Procaine	Novocain	Positive for Opiates (OPI, MOP)
Progesterol		Non-reactive
Promethazine	Allerfen, Anergan, Antinaus, Aprobit, Avomine, Baymethzine, Diprozin, Fenergan, Methazine, Phenergen	Positive for Tricyclic Antidepressants (TCA)
Propranolol	Beta-Progane, Inderal, Inderetic, Inderex	Non-reactive
Pseudoephedrine	Afrinol, Expulin, Sudafed, Tylenol Cold (combination)	Non-reactive
Ranitidine	Pylorid, Zantac	Positive for Methamphetamine (M-AMP) Urinary metabolite(s) only; parent compound is non-reactive
Risperidone	Risperdal	Non-Reactive
Salbutamol(albuterol)	Aerocrom, Aerolin, Airomir, Asmasal, Combivent, Duovent, Ventide, Ventodisks, Venotlin, Volmax	Non-reactive
Secobarbital	Seconal	Positive for Barbiturates (BAR)
Senosides	Senokot	Non-reactive
Sertraline	Zoloft	Potential Positive for Benzodiazepines (BZO)
Sodium Valproate	Depakene, Depakote, Epilim	Non-reactive
Temazepam	Restoril	Positive for Benzodiazepines (BZO)
Testosterone	Andropatch, Restandol, Sustanon, Virormone, slang name "anabolic steroids"	Non-reactive
Thioridazine	Mellaril	Non-reactive
Thyroxine Sodium	Eltroxin	Non-reactive
Tramadol	Tramake, Ultram, Zamadol, Zydol	Non-reactive
Trazodone	Desyrel, Molipaxin, Trialodine	Non-reactive
Triazolam	Halcion	Positive for Benzodiazepines (BZO)
Valporic Acid	Depakene	Non-reactive
Venlafaxine	Effexor, Effexor XL	Potential Positive for Phencyclidine (PCP)
Warfarin Sodium	Coumadin, Marevan	Non-reactive

