

## Cross Reactants / *potential reactants and cross-reactants chart*

Cross-reactivity of structurally similar substances is a problem associated with immunoassay methodologies, resulting in false positive or negative results. Screening technologies are predominantly immunoassay techniques which may provide high sensitivity but are of limited specificity. Manufacturers will test for common potential interfering substances and list these on package inserts, however it is not possible to test every compound. Also some compounds ingested in therapeutic dosage may not cross-react, however when abused in “mega” doses may significantly influence urine immunoassay results.

Listed below are potential reactants and cross-reactants with **most** immunoassay methodologies:

COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS/CROSS REACTANTS
Acetaminophen (see also Paracetamol)	Aceta, Acephen, Apacet, Dapacen, Feverall, Tylenol, Excedrin (combination), Panadol, Tempra	Non-reactive
Acetaminophen with Codeine (see also Paracetamol with codeine)	Tylenol 3, Tylenol with codeine	Positive for Opiates (OPI, MOR/MOP) Potential cross reactants: Dihydrocodeine
Acetophenetidin	Phenacetin	Non-reactive
Acetylsalicylic acid	Aspirin, Anadin, Anasin, Bufferin, Caprin, Disprin, Ecotrin, Empirin, Excedrin (combination)	Non-reactive
Allobarbitol	No known trade names	Positive for Barbiturates (BAR)
Alphenol	No known trade names	Positive for Barbiturates (BAR)
Alprazolam	Xanax	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
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
Aminopyrine		Non-reactive
Amitriptyline	Elavil, Lentizol, Tryptizol, Triptafen, Triptafen-M	Positive for Tricyclic Antidepressants (TCA)
Ammonia/Ipecacuanha	Ipecac	Non-reactive
Amobarbital	Amytal, Tuinal	Positive for Barbiturates (BAR)
Amoxicillin or Amoxycillin	Amoxil, Amoram, Augmentin, Heliclear	Non-reactive

Therapeutic dosages may not be detected in urine.

COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS/CROSS REACTANTS
Amphetamine / Methamphetamine	AMP: Adderall, Dexedrine, Benzedrine M/AMP: Desoxyn, Didrex Eldepryl	Positive for Amphetamines/ Methamphetamines Potential cross reactants: Ephedrine, Pseudoephedrine, Phenylpropanolamine, Phentermine, Phenmetrazine, Ranitidine
Ampicillin	Penbritin, Polycillin, Principen	Non-reactive
Antazoline Sulphate	Otrivine-Anistin	Non-reactive
Aprobarbital		Positive for Barbiturates (BAR)
Aspirin	Bayer Aspirin, Excedrin, ASA, Angettes, Asasantin, Caprin	Non-reactive
Atenolol	Beta-adlat, Co-tenidone, Kalten, Tenben, Tenif, Tenoret50, Tenorectic, Tenormin	Non-reactive
Atorvastatin	Lipitor	Non-reactive
Azlocillin	Securopen	Non-reactive
Barbital		Positive for Barbiturates (BAR)
Beclometasone	AeroBec, AeroBec Forte, Asmabec, Beclazone, Becloforte, Becodisks, Beconase, Becotide, Fillair, Nasobec, Ovar, Ventide, Zonivent	Non-reactive
Bendrofluazide	Aprinox, Cogarectic, Indertic, Inderex, Neo-Naclax, Neo-Naclax-K, Prestim, Tenben	Non-reactive
Benzalkonium	Bradosol	Non-reactive
Benzylamine HCl	Difflam	Non-reactive
Benzodiazepines	See individual Benzodiazepines listed	Potential cross reactants: Oxaprozin (Daypro), Sertraline
Benzylpenicillin	Crystapen	Non-reactive
Bromazepam	Lexotan	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Brompheniramine	Dimetapp, Dimotapp, Dimotane	Non-reactive
Buprenorphine	Subutex, Temgesic	Non-reactive
Bupropion	Wellbutrin, Zyban	Non-reactive
Butabarbital	Butisol, Soneryl	Positive for Barbiturates (BAR)
Butalbital	Fioricet, Fiorinal	Positive for Barbiturates (BAR)
Canestan	Canestan ear/skin/vaginitis/HC	Non-reactive
Carbamazepine	Tegretol, Teril, Timonil	Non-reactive
Cephalexin	Ceporex, Keflex	Non-reactive
Chloral Hydrate	Welldorm	Non-reactive
Chlordiazepoxide	Librium	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline

Potential Reactants and Cross-Reactants Chart

COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS/CROSS REACTANTS
Chlorhexidine Gluconate	Bactrigas, Cordsodyl, Chlorohex, CX Powder, Dermol, Hibicet, Hibiscrub, Hibisol, Hibitane, Instillagel, Naseptin, Nystaform, Serotulle, Steripod, Tisept, Unisept, Uriflex, Uro-Trainer	Non-reactive
Chlorpheniramine Maleate	Galpseud, Haymine, Piriton	Non-reactive
Chlorpromazine	Largactil	Non-reactive
Cimetidine	Dyspamet, Tagamet, Zita	Non-reactive
Clobazam	Frisium	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Clonazepam	Clonopin, Klonopin, Rivotril	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Clorazepate	Tranxene	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Citalopram	Cipramil	Non-reactive
Co-Amoxiclav	Augmentin, Augmentin Duo	Non-reactive
Codeine Phosphate	Codafen Continus, Codeine Linctus, Pediatric BP, Galcodine, Kapake, Migraleve, Solpadol, Tylex	Positive for Opiates (OPI, MOR/MOP) Potential cross reactants: Dihydrocodeine
Co-Fluampicil	Magnapen	Non-reactive
Co-Phenotrope (atropine/diphenoxylate)	Lomotil, Trepergen	Non-reactive
Delorazepam	Briantum	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Dexamethasone	Decadron, Dexamethasone Spray Duo, Maxidex, Maxidrol, Minims, Otomize, Sofradex	Non-reactive
Dextroamphetamine	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) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Diclofenac Sodium	Dicloflex, Diclomax, Motifene, Volraman, Volsaid, Voltarol	Non-reactive
Dicyclomine	Kolanticon, Merbentyl	Non-reactive
Dihydrocodeine	DHC Continus, Paramol, Remedeine, Remedeine Forte	Potential Positive for Opiates (OPI, MOR/MOP)
Dimethicone	Asilone, Fancorsil	Non-reactive
Diphenhydramine	Benadryl, Medinex, Nytol, Panadol Night	Non-reactive

Therapeutic dosages may not be detected in urine.

COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS/CROSS REACTANTS
Diphenoxylate with Atropine	Lomotil	Non-reactive
Dothiepin	Prothiaden	Non-reactive
Doxycycline	Vibramycin, Vibramycin-D	Non-reactive
Doxepin	Sinequan, Xepin	Positive for Tricyclic Antidepressants (TCA)
Efavirenz	Sustiva	Potential Positive for Cannabinoids (THC)*
Erythromycin	Arpimycin, Benzymycin, Erycane, Erymax, Erythrocin, Erythroped, Ilosone, Isotrexin, Lactobinate, Stiemycin, Tiloryth, Zineryl	Non-reactive
Estazolam	ProSom	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Ethambutol	Myambutol	Non-reactive
Ethylmorphine		Positive for Opiates (OPI, MOR/MOP) Potential cross reactants: Dihydrocodeine
Flucloxacillin	Co-fluampicil, Floxapen, Magnapen	Non-reactive
Flunitrazepam	Rohypnol	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Fluoxetine	Prozac, Sarafem	Non-reactive
Flupentixol Decanoate	Depixol, Fluanxol	Non-reactive
Fusidic Acid (Sodium Fusidate)	Fucithalamic, Fucibet, Fucidin	Non-reactive
Gentamicin Sulphate	Cidomycin, Gentacin, Gentisone	Non-reactive
Hydrocodone	Lorcet, Loratab, Vicodin	Positive for Opiates (OPI, MOR/MOP) Potential cross reactants: Dihydrocodeine
Hydrocortisone	Actinac, Alphaderm, Alphosyl-HC, Anugesic-HC, Anusol-HC, Calmurid-HC, Canesten-HC, Colioam, Daktacort, Dioderm, Econacort, Efortelan, Efcortesel, Eurax-HC, Gregoderm, Hydrocortistab, Hydrocortone, Mildisonlipocream, 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/MOP) Potential cross reactants: Dihydrocodeine
Hydroxychloroquine	Plaquenil	Non-reactive
Hydroxyzine Hydrochloride	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

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\* Urinary metabolite(s) only; parent compound is non-reactive

Potential Reactants and Cross-Reactants Chart

COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS/CROSS REACTANTS
Interferon Alfa	Roferon-A, Intron A, Viraferon, Wellferon	Non-reactive
Isoniazide	INH	Non-reactive
Isosorbide Dinitrate	Angitak, Cedocard, Isocard, Isoket, Isordil, Sorbichew, Sorbitrate, Sorbid SA	Non-reactive
Koalin and Morphine Mixture	Diocalm, Entersan, Opazimes	Positive for Opiates (OPI, MOR/MOP) Potential cross reactants: Dihydrocodeine
Ketoprofen	Orudis, Oruvail, Powergel	Non-reactive
Lactulose	Lactugal, Duphalec	Non-reactive
Lamotrigine	Lamitcal	Potential Positive for PCP
Lansoprazole	Heliclear, Zoton	Non-reactive
Lisinopril HCl	Carace, Zestril, Zestoretic	Non-reactive
Lofepamine	Gamanil, Lomont	Positive for Tricyclic Antidepressants (TCA)
Lofexidine	Britoflex	Non-reactive
Loperamide HCl	Imodium, Loperagen, Norimide	Non-reactive
Loratadine	Claritin	Non-reactive
Lorazepam	Ativan	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Lormetazepam	Noctamide	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Magnesium Alginate	Gaviscon	Non-reactive
Mannitol	Gaviscon	Non-reactive
Medazepam	Anxitol, Lerisum, Medacepan, Nobritol, Nobrium	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Mefenamic Acid	Ponstan, Ponstel	Non-reactive
Meperidine	Demerol, Pethidine	Non-reactive
Metoclopramide	Reglan	Non-reactive
Methadone Hydrochloride	Dolophine, Methadose, Phisetone	Positive for Methadone (MTD) Potential cross reactants: Doxylamine
d-Methamphetamine HCL	Desoxyn, Methedrine, Methamprex	Positive for Methamphetamine (M-AMP) Potential cross reactants: Ephedrine, Pseudoephedrine, Phenylpropanolamine, Phentermine, Phenmetrazine, Ranitidine
l-Methamphetamine HCL	Vick's Inhaler	Positive for Methamphetamine (M-AMP) Potential cross reactants: Ephedrine, Pseudoephedrine, Phenylpropanolamine, Phentermine, Phenmetrazine, Ranitidine

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COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS/CROSS REACTANTS
Methylenedioxyamphetamine (MDA)	Eve (slang), Love Drug (slang)	Positive for Amphetamine (AMP) Potential cross reactants: Ephedrine, Pseudoephedrine, Phenylpropanolamine, Phentermine, Phenmetrazine, Ranitidine
Methylenedioxymethamphetamine (MDMA)	Ecstasy (slang), XTC (slang), Adam (slang), E (slang)	Positive for Methamphetamine (M-AMP) and Ecstasy (MDMA) Potential cross reactants: Ephedrine, Pseudoephedrine, Phenylpropanolamine, Phentermine, Phenmetrazine, Ranitidine
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 (OPI, MOR/MOP) Potential cross reactants: Dihydrocodeine
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, Niften, Procardia	Non-reactive
Nitrazepam	Mogadon, Somnite	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Norethindrone	BiNovum, Brevinor, Climagest, Climesse, Elleste Duet, Etracombi, Evorel, Kliofem, Kliovance, Loestrin, Micronor, Norlutin, Noriday, Norimin, Norinyl, Noristat, Nuvelle, Ovysmen, TriNovum, Trisquens, Utovian	Non-reactive
Noscapine	Narcotine	Non-reactive
d/l-Octopamine	No known trade names	Non-reactive
Olanzapine	Zyprexa	Non-reactive
Orphenadrine	Norflex, Norgesic, Disipil	Non-reactive
Oxazepam	Serax, Ox-pam	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Oxycodone	Oxycontin, Percodan, Roxicet	Positive for Oxycodone
Oxymetazoline	Afrin, Neo-synephrine	Non-reactive
Oxytetracycline	Terra-Cortil, Terramycin, Trimovate	Non-reactive
Paracetamol (Acetaminophen)	Fortagesic, Paradote	Non-reactive

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COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS/CROSS REACTANTS
Paracetamol (Acetaminophen)/Codeine Preparations	Tylenol 3, Co-codamol, Codafen, Co-dydramol, Kapake, Remedine, Solpadol, Tylex	Positive for Opiates (OPI, MOR/MOP) Potential cross reactants: Dihydrocodeine
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
Phencyclidine	PCP	Potential cross reactants: Thioridazine, Chlorpromazine, Doxylamine, Lamotrigine
Phenobarbitone (see also Phenobarbital)	Luminal	Positive for Barbiturates (BAR)
Phenytoin	Dilantin, Epanutin, Eptard	Non-reactive
Phenobarbital	Donnatal	Positive for Barbiturates (BAR)
Pholcodine	Galenphol, Strong BP, Pavacol-D, Thebacon	Positive for Opiates (OPI, MOR/MOP) Potential cross reactants: Dihydrocodeine
Piperacillin	Pipracil, Tazobactam	Non-reactive
Prazepam	Centrax, Demetrim	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Prednisolone	Delta-cortef, Econopred, Inflamase, PEDIAPRED, Prelone	Non-reactive
Procaine	Novocain	Non-reactive
Progesterol		Non-reactive
Promethazine	Allerfen, Anergan, Antinaus, Aprobit, Avomine, Baymethzine, Diprozin, Fenegan, Methazine, Phenergen	Non-reactive
Propranolol	Beta-Progane, Inderal, Inderetic, Inderex	Non-reactive
Pseudoephedrine	Afrinol, Sudafed, Tylenol Cold (combination)	Potential Positive for Amphetamine (AMP) and Methamphetamine (M-AMP)*
Ranitidine	Pylorid, Zantac	Potential Positive for Methamphetamine (M-AMP)*
Salbutamol	Aerocrom, Aerolin, Airomir, Asmasal, Combivent, Duovent, Ventide, Ventodisks, Venotlin, Volmax	Non-reactive
Secobarbital	Seconal	Positive for Barbiturates (BAR)
Sennosides	Senokot	Non-reactive
Sertraline	Zoloft	Potential Positive for Benzodiazepines (BZO)
Sodium Valproate	Depakene, Depakote, Epilim	Non-reactive
Temazepam	Restoril	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline

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\* Urinary metabolite(s) only; parent compound is non-reactive

COMPOUND (Generic Name)	COMPOUND (Trade Name)	RESULTS/CROSS REACTANTS
Testosterone	Andropatch, Restandol, Sustanon, Virormone, slang name "anabolic steroids"	Non-reactive
Thioridazine Hydrochloride	Mellaril	Non-reactive
Thyroxine Sodium	Eltroxin	Non-reactive
Tramadol	Ultram, Tramake, Zamadol, Zydol	Non-reactive
Trazodone (Also known as Molipaxin)	Desyrel, Molipaxin, Trialodine	Non-reactive
Triazolam	Halcion	Positive for Benzodiazepines (BZO) Potential cross reactants: Oxaprozin (Daypro), Sertraline
Venlafaxine	Effexor, Effexor XL	Non-reactive
Warfarin Sodium	Coumadin, Marevan	Non-reactive

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**List not all inclusive:**

It is possible that other substances and/or factors not listed may interfere with the test and cause false results e.g. technical or procedural.

All positive results from onsite drug testing are presumptive and should be confirmed by an alternative method such as gas chromatography/mass spectrometry (GC/MS)