

DRUG NAME	PGX ON FDA LABEL	EXPLANATION OF FDA ¹ LABEL ²
Acenocoumarol		<p>Actionable PGx</p> <p>The label may contain information about changes in efficacy, dosage, metabolism or toxicity due to gene/protein/chromosomal variants or phenotypes (e.g. "poor metabolizers"). Or the label may mention contraindication of the drug in a particular subset of patients with particular variants/genotypes/phenotypes. However, the label does not require or recommend gene, protein or chromosomal testing.</p> <p>Informative PGx</p> <p>1. The label contains information stating that particular gene/protein/chromosomal variants or metabolizer phenotypes do not affect a drug's efficacy, dosage, metabolism or toxicity. Or, the label states that particular variants or phenotypes affect a drug's efficacy, dosage, metabolism or toxicity, but this effect is not "clinically" significant.</p> <p>OR</p> <p>2. The label appears or appeared on the FDA Biomarker List but does not currently meet the requirements to be assigned as "Testing required", "Testing recommended" or "Actionable PGx". PharmGKB annotates every label that appears on the FDA Biomarker list, regardless of whether we would otherwise annotate the label.</p> <p>Testing required</p> <p>The label states or implies that some sort of gene, protein or chromosomal testing, including genetic testing, functional protein assays, cytogenetic studies, etc., should be conducted before using this drug. This requirement may only be for a particular subset of patients. PharmGKB considers labels that state the variant is an indication for the drug, as implying a test requirement. If the label states a test "should be" performed, this is also interpreted as a requirement.</p> <p>Testing recommended</p> <p>The label states or implies that some sort of gene, protein or chromosomal testing, including genetic testing, functional protein assays, cytogenetic studies, etc., is recommended before using this drug. This recommendation may only be for a particular subset of patients. PharmGKB considers labels that say testing "should be considered" to be recommending testing.</p> <p>1. FDA: US Food and Drug Administration-approved drug label.</p> <p>2. M. Whirl-Carrillo, E.M. McDonagh, J. M. Hebert, L. Gong, K. Sangkuhl, C.F. Thorn, R.B. Altman and T.E. Klein. "Pharmacogenomics Knowledge for Personalized Medicine" <i>Clinical Pharmacology & Therapeutics</i> (2012) 92(4): 414-417.</p> <p>For the most up-to-date information on FDA drug labelling: https://www.pharmgkb.org/page/drugLabelLegend#PGxLevel</p>
Atorvastatin		
Carvedilol	Actionable PGx	
Clopidogrel	Actionable PGx	
Flecainide		
Metoprolol	Informative PGx	
Nebivolol		
Prasugrel		
Propafenone	Actionable PGx	
Propranolol	Informative PGx	
Simvastatin	Informative PGx	
Tacrolimus		
Ticagrelor		
Timolol		
Warfarin	Actionable PGx	

DRUG NAME	PGX ON FDA LABEL	EXPLANATION OF FDA ¹ LABEL ²
Alprazolam		<p>Actionable PGx</p> <p>The label may contain information about changes in efficacy, dosage, metabolism or toxicity due to gene/protein/chromosomal variants or phenotypes (e.g. "poor metabolizers"). Or the label may mention contraindication of the drug in a particular subset of patients with particular variants/genotypes/phenotypes. However, the label does not require or recommend gene, protein or chromosomal testing.</p> <p>Informative PGx</p> <p>1. The label contains information stating that particular gene/protein/chromosomal variants or metabolizer phenotypes do not affect a drug's efficacy, dosage, metabolism or toxicity. Or, the label states that particular variants or phenotypes affect a drug's efficacy, dosage, metabolism or toxicity, but this effect is not "clinically" significant.</p> <p>OR</p> <p>2. The label appears or appeared on the FDA Biomarker List but does not currently meet the requirements to be assigned as "Testing required", "Testing recommended" or "Actionable PGx". PharmGKB annotates every label that appears on the FDA Biomarker list, regardless of whether we would otherwise annotate the label.</p> <p>Testing required</p> <p>The label states or implies that some sort of gene, protein or chromosomal testing, including genetic testing, functional protein assays, cytogenetic studies, etc., should be conducted before using this drug. This requirement may only be for a particular subset of patients. PharmGKB considers labels that state the variant is an indication for the drug, as implying a test requirement. If the label states a test "should be" performed, this is also interpreted as a requirement.</p> <p>Testing recommended</p> <p>The label states or implies that some sort of gene, protein or chromosomal testing, including genetic testing, functional protein assays, cytogenetic studies, etc., is recommended before using this drug. This recommendation may only be for a particular subset of patients. PharmGKB considers labels that say testing "should be considered" to be recommending testing.</p> <p>1. FDA: US Food and Drug Administration-approved drug label.</p> <p>2. M. Whirl-Carrillo, E.M. McDonagh, J. M. Hebert, L. Gong, K. Sangkuhl, C.F. Thorn, R.B. Altman and T.E. Klein. "Pharmacogenomics Knowledge for Personalized Medicine" <i>Clinical Pharmacology & Therapeutics</i> (2012) 92(4): 414-417.</p> <p>For the most up-to-date information on FDA drug labelling: https://www.pharmgkb.org/page/drugLabelLegend#PGxLevel</p>
Amitriptyline	Actionable PGx	
Aripiprazole	Actionable PGx	
Atomoxetine	Actionable PGx	
Brexpiprazole	Actionable PGx	
Brivaracetam	Actionable PGx	
Buspirone		
Citalopram	Actionable PGx	
Clobazam	Actionable PGx	
Clomipramine	Actionable PGx	
Clonazepam		
Clozapine	Actionable PGx	
Desipramine	Actionable PGx	
Diazepam	Actionable PGx	
Donepezil	Actionable PGx	
Doxepin	Actionable PGx	
Duloxetine	Actionable PGx	
Escitalopram	Actionable PGx	
Eszopiclone		
Fluoxetine	Informative PGx	
Flupenthixol		
Fluvoxamine	Actionable PGx	
Galantamine	Informative PGx	
Guanfacine		
Haloperidol		
lloperidone	Actionable PGx	
Imipramine		
Mirtazapine		
Moclobemide		
Nortriptyline	Actionable PGx	
Olanzapine		
Paroxetine	Informative PGx	
Perphenazine	Actionable PGx	
Phenytoin	Actionable PGx	
Pimozide	Testing Required	
Protriptyline	Actionable PGx	
Quetiapine		
Risperidone	Informative PGx	
Sertraline		
Thioridazine	Actionable PGx	
Trazodone		
Venlafaxine	Actionable PGx	
Vortioxetine	Actionable PGx	
Zuclopenthixol		