## Drug-Drug Interaction Guide: From HIV Prevention to Treatment





Table 23: Antiplatelet Medications (also see prescribing information)		
→ Adenosine phosphate receptor inhibitors, cilostazol, dipyridamole		
Class or Drug	Mechanism of Action	Clinical Comments
<ul> <li>NRTIs</li> <li>Dolutegravir (DTG)</li> <li>Bictegravir (BIC)</li> <li>Cabotegravir (CAB)</li> <li>Raltegravir (RAL)</li> <li>Rilpivirine (RPV)</li> <li>Doravirine (DOR)</li> </ul>	No significant interactions are expected.	No dose adjustments are necessary.
Elvitegravir (EVG), boosted	<ul> <li>Cilostazol may be metabolized by CYP3A; COBI-boosted EVG can increase concentrations of this drug.</li> <li>Ticagrelor: Strong CYP3A4 inhibitors may increase ticagrelor exposure.</li> <li>Clopidogrel: Boosted EVG significantly decreases production of clopidogrel's active metabolite.</li> <li>Prasugrel: Boosted EVG decreases prasugrel's active metabolite; however, adequate antiplatelet activity is maintained.</li> <li>Vorapaxar: Increased vorapaxar levels are expected.</li> </ul>	<ul> <li>Cilostazol: Monitor for antiplatelet effect. May be necessary to use alternative antiplatelet medication or alternative ARV.</li> <li>Ticagrelor: To avoid increased bleeding risk, do not use ticagrelor with strong CYP3A inhibitors, particularly COBI and RTV.</li> <li>Clopidogrel, vorapaxar: Do not coadminister.</li> <li>Prasugrel: No dose adjustments are necessary.</li> </ul>
Boosted PIs	<ul> <li>Cilostazol is metabolized by CYP3A; boosted PIs will increase concentrations of this drug.</li> <li>Dipyridamole: RTV-boosted PIs may induce UGT enzymes, which are responsible for metabolism of dipyridamole (not seen with COBI).</li> <li>Ticagrelor: Strong CYP3A4 inhibitors may increase ticagrelor exposure.</li> <li>Clopidogrel: Boosted PIs may decrease production of clopidogrel's active metabolite.</li> <li>Prasugrel: Boosted PIs may decrease prasugrel's active metabolite; however, adequate antiplatelet activity is maintained.</li> <li>Vorapaxar: Increased vorapaxar levels are expected.</li> </ul>	<ul> <li>Cilostazol: Monitor for antiplatelet effect; may be necessary to use alternative antiplatelet medication or alternative ARV.</li> <li>Dipyridamole: Monitor for antiplatelet effect; use alternative ARV or boost with COBI if necessary.</li> <li>Ticagrelor: To avoid increased bleeding risk, do not use ticagrelor with strong CYP3A inhibitors, particularly COBI and RTV.</li> <li>Clopidogrel, vorapaxar: Do not coadminister.</li> <li>Prasugrel: No dose adjustments are necessary.</li> </ul>
<ul> <li>Efavirenz (EFV)</li> <li>Etravirine (ETR)</li> </ul>	<ul> <li>Cilostazol: EFV and ETR may reduce cilostazol concentrations.</li> <li>Dipyridamole: EFV and ETR may induce UGT enzymes, which are responsible for metabolism.</li> <li>Ticagrelor, clopidogrel: EFV and ETR reduce ticagrelor concentrations and conversion of clopidogrel to its active metabolite.</li> <li>Vorapaxar: When coadministered with ETR, vorapaxar levels expected to be reduced.</li> </ul>	<ul> <li>Cilostazol: Monitor for antiplatelet effect; may be necessary to use alternative antiplatelet medication or alternative ARV.</li> <li>Dipyridamole: Monitor for antiplatelet effect; use alternative ARV if necessary.</li> <li>Ticagrelor, clopidogrel: Use with EFV or ETR may reduce antiplatelet effect; monitor closely for efficacy and use alternative ARV if necessary.</li> <li>Prasugrel: When coadministered with ETR, no dose adjustments are necessary.</li> <li>Vorapaxar: No data available.</li> </ul>



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Class or Drug Mechanism of Action Clinical Comments

**Abbreviations:** ARV, antiretroviral; COBI, cobicistat; CYP, cytochrome P450; NRTI, nucleoside reverse transcriptase inhibitor; PI, protease inhibitor; RTV, ritonavir; UGT, uridine diphosphate glucuronosyltransferase.