

Table 1 : R groups for the general structure of PPIs .

Compound	Brand names	Substituents					Form	First approval
		X	R ¹	R ²	R ³	R ⁴		
Omeprazole	Losec, Antra, Omepral, Prilosec	CH	OCH ₃	CH ₃	CH ₃	CH ₃	Racemate	1989 in USA
Esomeprazole	Nexium, Esotrex, pumpinox	CH	OCH ₃	CH ₃	CH ₃	CH ₃	S-enantiomer of omeprazole	2001 in USA
Lansoprazole	Prevacid, Helicid, Zoton, Inhibitol	CH	H	CH ₃	CH ₂ CF ₃	H	Racemate	1991 in Europe
Dexlansoprazole	Kapidex, Dexilant	CH	H	CH ₃	CH ₂ CF ₃	H	R-enantiomer of lansoprazole	2009 in USA
Pantoprazole	Protonix, Somac, Pantec, Pantoloc	CH	OCHF ₂	OCH ₃	CH ₃	H	Racemate	1994 in Germany
Rabeprazole	Pariet, AcipHex, Zechin, Rabecid	CH	H	CH ₃	(CH ₂) ₃ OCH ₃	H	Racemate	1999 in USA
Tenatoprazole	Radicuto	N	OCH ₃	CH ₃	CH ₃	CH ₃	Racemate	—