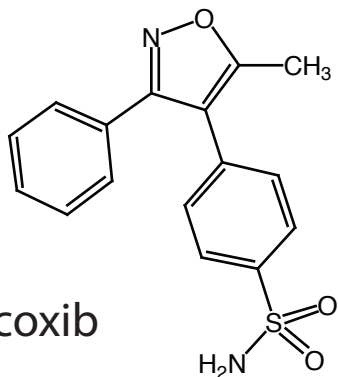
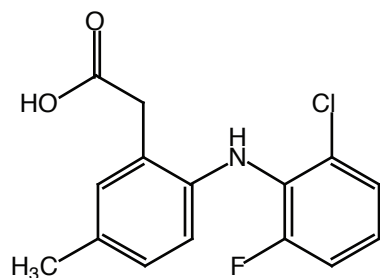
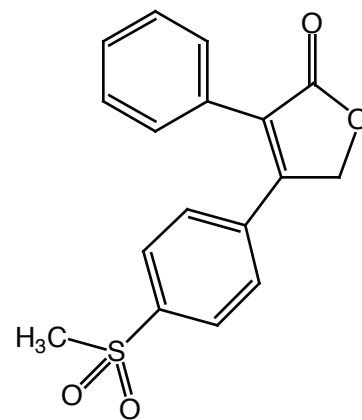


# Cox-2 Inhibitors

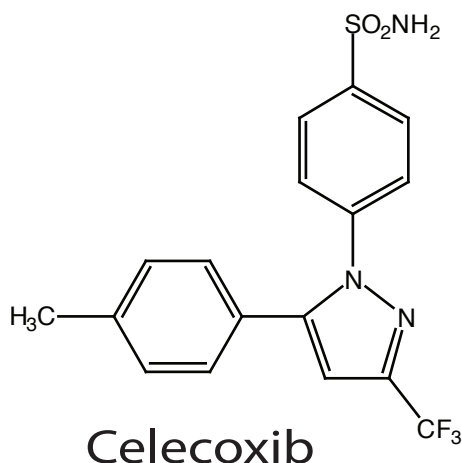
Valdecoxib



Rofecoxib



Lumiracoxib



Celecoxib

COX-2 inhibitors belong to a class of anti-inflammatory drugs (NSAID) that directly target cyclooxygenase-2 COX-2, an enzyme that is responsible for inflammation and pain<sup>1,2</sup>. Unlike, regular NSAIDs, COX-2 inhibitors do not inhibit cyclooxygenase-1 (COX-1), an enzyme present in different areas of the body, including the stomach. COX-1 produces prostaglandins that make natural mucus that protects the stomach. By blocking the activity of COX-1, NSAIDs cause stomach irritation,

ulceration and bleeding. The specificity of COX-2 inhibitors makes them superior anti-inflammatory drugs. Representative COX-2 inhibitors include rofecoxib, valdecoxib, celecoxib, and lumiracoxib. COX-2 inhibitors have been also studied as cancer chemoprevention drugs due to their ability to prevent inflammation<sup>3,4,5</sup>. Recently COX-2 inhibitors were investigated as chemopreventive agents for colorectal cancer,<sup>6</sup> prostate cancer<sup>3</sup> and breast cancer<sup>7</sup>.

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