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# Cyclooxygenase in GtoPdb v.2023.1

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## Abstract

Prostaglandin (PG) G/H synthase, most commonly referred to as cyclooxygenase (COX, (5Z,8Z,11Z,14Z)-icosa-5,8,11,14-tetraenoate,hydrogen-donor : oxygen oxidoreductase) activity, catalyses the formation of $PGG_2$ from arachidonic acid. Hydroperoxidase activity inherent in the enzyme catalyses the formation of $PGH_2$ from $PGG_2$. COX-1 and -2 can be nonselectively inhibited by ibuprofen, ketoprofen, naproxen, indomethacin and paracetamol (acetaminophen). $PGH_2$ may then be metabolised to prostaglandins and thromboxanes by various prostaglandin synthases in an apparently tissue-dependent manner.

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Cyclooxygenase
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COX-1
https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1375

COX-2
https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1376

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