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Produktinformation



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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION



COX-1 (human, recombinant; mammalian expressed)

Item No. 26306

Overview and Properties

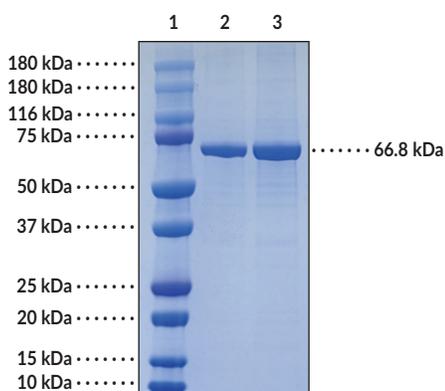
Synonyms: Cyclooxygenase 1, PGHS-1, Prostaglandin Endoperoxide Synthase 1, Prostaglandin G/H Synthase 1, Prostaglandin H2 Synthase 1
Source: Active recombinant human His-tagged COX-1 expressed in HEK293 cells
Amino Acids: 25-599
Uniprot No.: P23219
Molecular Weight: 66.8 kDa
Storage: -80°C (as supplied)
Stability: ≥1 year
Purity: ≥80% estimated by SDS-PAGE
Supplied in: 80 mM Tris, pH 8.0, with 0.3 mM diethyldithiocarbamic acid (DDC), 0.01% Tween 20, and 10% glycerol

Protein

Concentration: *batch specific* mg/ml
Activity: *batch specific* U/ml
Specific Activity: *batch specific* U/mg
Unit Definition: One unit is defined as the amount of enzyme required to consume 1 nmol of oxygen per 1 minute at 37°C in 100 mM Tris, pH 8.0, containing 100 μM arachidonate, 5 mM EDTA, 2 mM phenol, and 1 μM hemin.

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

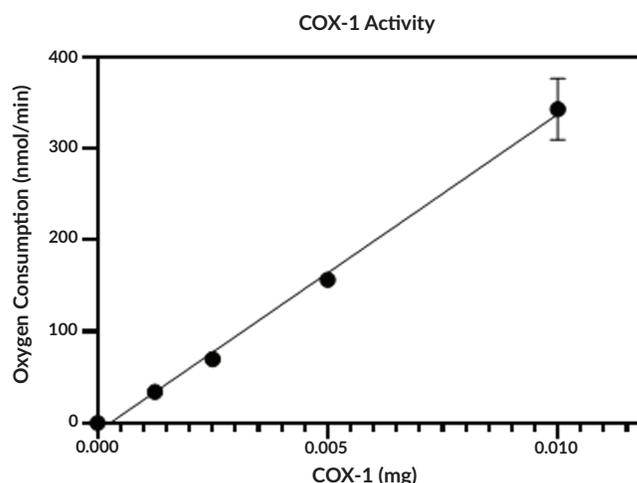
Image



Lane 1: MW Markers
Lane 2: COX-1 (2 μg)
Lane 3: COX-1 (4 μg)

SDS-PAGE Analysis of COX-1.

Representative gel image shown; actual purity may vary between each batch.



COX-1 (human, recombinant; mammalian expressed) activity was determined using an oxygraph to measure the consumption of oxygen during the oxidation of the substrate arachidonate.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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PRODUCT INFORMATION



Description

Cyclooxygenase 1 (COX-1) is a bifunctional enzyme that exhibits both COX and peroxidase activities.^{1,2} It is composed of an N-terminal signal peptide, an EGF-like domain, a membrane binding domain, a catalytic domain, and a C-terminal tail.³ COX-1 is constitutively expressed in the gastrointestinal tract, kidney, spleen, liver, and lung and localizes to the endoplasmic reticulum.^{4,5} The COX component converts arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) to a hydroperoxyl endoperoxide prostaglandin G₂ (PGG₂; Item No. 17010) and the peroxidase component reduces the endoperoxide to the corresponding alcohol PGH₂ (Item No. 17020), the precursor of PGs, thromboxanes, and prostacyclins.^{1,2} COX-1 is the target of many non-steroidal anti-inflammatory drugs (NSAIDs) and is responsible for the undesirable gastrointestinal and renal side effects, such as ulcer formation and reductions in the glomerular filtration rate, respectively.^{6,7} Cayman's COX-1 (human, recombinant; mammalian expressed) protein can be used for enzyme activity assays.

References

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7. Frölich, J.C. A classification of NSAIDs according to the relative inhibition of cyclooxygenase isoenzymes. *Trends Pharmacol. Sci.* **18(1)**, 30-34 (1997).

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