Creative Enzymes®

Native Sheep Cyclooxygenase 1

Cat. No. NATE-0149

Lot. No. (See product label)

Introduction

Description	COX-1 catalyzes the conversion of arachidonic acid to prostaglandin H2 (the first step in the biosynthesis of prostaglandins, thromboxanes, and prostacyclins). It is involved in the homeostatic role of eicosanoids and constitutively almost all animal tissues. Has an apparent KM of 8.3 μM for arachidonic acid.
Synonyms	COX-1; Constitutive cyclooxygenase; Prostaglandin H synthase 1; Prostaglandin endoperoxide synthase; EC 1.14.99.1; prostaglandin synthase; prostaglandin G/H synthase; (PG)H synthase; PG synthetase; prostaglandin synthetase; fatty acid cyclooxygenase; prostaglandin endoperoxide synthetase

Product Information

Source	Sheep
Form	aqueous solution. Solution in 80 mM Tris-HCl, pH 8, with 0.1% TWEEN 20 and 300 μM diethyldithiocarbamate.
EC Number	EC 1.14.99.1
CAS No.	9055-65-6
Molecular Weight	dimer subunit mol wt 70 kDa
Purity	> 95% (SDS-PAGE),
Activity	> 40,000 units/mg protein
Pathway	Alzheimer's disease, organism-specific biosystem; Cytochrome c oxidase, organism-specific biosystem; Huntington's disease, conserved biosystem
Unit Definition	One unit consumes one nanomole of oxygen per minute at 37°C in 0.1 M Tris-HCl buffer, pH 8, containing 100 μM arachidonate, 5 mM EDTA, 2 mM phenol, and 1 μM hematin.

Storage and Shipping Information

Storage	−70°C