Recombinant Human PTGS2/COX2/PGHS-2 Protein (His

Tag)

Catalog Number: PKSH030929



Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description

Synonyms COX-2;COX2;GRIPGHS;hCox-2;PGG/HS;PGHS-2;PHS-2

Species Human

Expression Host Baculovirus-Insect Cells

SequenceMet 1-Leu 604AccessionNP_000954.1Calculated Molecular Weight68.5 kDaObserved molecular weight66 kDaTagC-His

Properties

Purity > 95 % as determined by reducing SDS-PAGE.

Endotoxin $< 1.0 \text{ EU per } \mu \text{g of the protein as determined by the LAL method.}$

Storage Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to

-80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots

of reconstituted samples are stable at < -20°C for 3 months.

Shipping This product is provided as lyophilized powder which is shipped with ice packs.

Formulation Lyophilized from sterile 50mM Tris, 100mM NaCl, 0.5mM PMSF, 10% glycerol,

pH 8.0

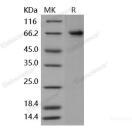
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printe

Reconstitution Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

PTGS2, also known as COX-2, is s component of Prostaglandin-endoperoxide synthase (PTGS). PTGS, also known as cyclooxygenase, is the key enzyme in prostaglandin biosynthesis, and acts both as a dioxygenase and as a peroxidase. There are two isozymes of PTGS: a constitutive PTGS1 and an inducible PTGS2, which differ in their regulation of expression and tissue distribution. PTGS2 is over expressed in many cancers. The overexpression of PTGS2 along with increased angiogenesis and GLUT-1 expression is significantly associated with gallbladder carcinomas. Furthermore the product of COX-2, PGH2 is converted by prostaglandin E2 synthase into PGE2, which in turn can stimulate cancer progression. Consequently inhibiting COX-2 may have benefit in the prevention and treatment of these types of cancer.

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PTGS2 is regulated by specific stimulatory events, suggesting that it is responsible for the prostanoid biosynthesis involved in inflammation and mitogenesis. It mediates the formation of prostaglandins from arachidonate and may have a role as a major mediator of inflammation and/or a role for prostanoid signaling in activity-dependent plasticity.

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