



Recombinant Protein Technical Manual
Recombinant Human PTGS2/COX2/PGHS-2 Protein
(His Tag)
RPES0411

Product Data:

Product SKU: RPES0411

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: NP_000954.1

Protein Information:

Molecular Mass: 68.5 kDa

AP Molecular Mass: 66 kDa

Tag: C-His

Bio-activity:

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

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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

Reconstitution: Please refer to the printed manual for detailed information.

Application:

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

Immunogen Information:

Sequence: Met 1-Leu 604

Background:

PTGS2, also known as COX-2, is a 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 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. 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.