



Polyclonal Anti-Cyclooxygenase-2, COX-2 (Sepharose Bead Conjugate)

Lot No. 09B01

Ig type: rabbit IgG

Size: 100µg/vial

Specificity

Human, mouse, rat. No cross reactivity with other proteins.

Recommended application

(Immunoprecipitation(IP)

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminal of human COX-2, different to the related rat sequence by two amino acids.

Purification

Immunogen affinity purified.

Formulation

50% slurry in PBS pH 7.2 with 0.01mg NaN₃a₃ preservative.

Storage Store at 4°C for frequent use.

Description:

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays

BACKGROUND

Cyclooxygenase (Cox) is the key enzyme in conversion of arachidonic acid to PGs, and two isoforms, Cox-1 and Cox-2, have been identified.1 Cox-2 gene encodes an inducible prostaglandin synthase enzyme that is overexpressed in adenocarcinomas and other tumors. Deletion of the murine Cox-2 gene in Min mice reduced the incidence of intestinal tumors, suggesting that it is required for tumorigenesis.2 This gene is localized to sites associated with retinal blood vessels, and plays an important role in blood vessel formation in the retina.3 And the glucocorticoid receptor suppression of COX-2 is also crucial for curtailing lethal immune activation, and suggest new therapeutic approaches for regulation of T-cell-mediated inflammatory diseases.4

REFERENCE

1. Salmenkivi, K.; Haglund, C.; Ristimaki, A.; Arola, J.; Heikkila, P. : Increased expression of cyclooxygenase-2 in malignant pheochromocytomas. *J. Clin. Endocr. Metab.* 86: 5615-5619, 2001. 2. Liu, C. H.; Chang, S.-H.; Narko, K.; Trifan, O. C.; Wu, M.-T.; Smith, E.; Haudenschild, C.; Lane, T. F.; Hla, T. : Overexpression of cyclooxygenase-2 is sufficient to induce tumorigenesis in transgenic mice. *J. Biol. Chem.* 276: 18563-18569, 2001.

3. Wilkinson-Berka, J. L.; Alousis, N. S.; Kelly, D. J.; Gilbert, R. E. : COX-2 inhibition and retinal angiogenesis in a mouse model of retinopathy of prematurity. *Invest. Ophthal. Vis. Sci.* 44: 974-979, 2003. 4. Brewer, J. A.; Khor, B.; Vogt, S. K.; Muglia, L. M.; Fujiwara, H.; Haegele, K. E.; Sleckman, B. P.; Muglia, L. J. : T-cell glucocorticoid receptor is required to suppress COX-2-mediated lethal immune activation. *Nature Med.* 9: 1318-1322, 2003.