



## Product Information Sheet

### Polyclonal Anti-Cyclooxygenase-2, **COX-2 (Magnetic Bead Conjugate)**

**Catalogue No.** PA1211

**Lot No.** 09B01

**Ig type** rabbit IgG

**Size** 100µg/vial

**Specificity**

Human, mouse, rat.

No cross reactivity with other proteins.

**Recommended application**

*Western blot*

*Immunohistochemistry(P)*

**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.

**Purity**

Immunogen affinity purified.

**Contents**

Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN<sub>3</sub>.

**Storage**

Store at 4°C for frequent use.

**Description**

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation

### 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.<sup>1</sup> 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.<sup>2</sup> This gene is localized to sites associated with retinal blood vessels, and plays an important role in blood vessel formation in the retina.<sup>3</sup> 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.<sup>4</sup>

### REFERENCE

1. Salmenkivi, K.; Haglund, C.; Ristimäki, A.; Arola, J.; Heikkilä, 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. Ophthalmol. Vis. Sci.* 44: 974-979, 2003.
4. Brewer, J. A.; Khor, B.; Vogt, S. K.; Muglia, L. M.; Fujiwara, H.; Haeghele, 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.