

# Product Information



## COX-2 (mouse) Polyclonal FITC Antibody

Item No. 10010096 • Lot No. XXXX

<b>Contents:</b>	This vial contains <b>lot specific</b> µg of peptide affinity-purified IgG-fluorescein conjugate in 500 µl PBS, pH 7.2, containing 50% glycerol, 0.5 mg/ml BSA, and 0.02% sodium azide.
<b>Synonyms:</b>	Cyclooxygenase 2, PGHS2, Prostaglandin H Synthase 2
<b>Antigen:</b>	Synthetic peptide from mouse COX-2 amino acids 570-598 (DPQPTKTATINASASHSRLDDINPTVLIK).
<b>Host:</b>	Rabbit
<b>Cross Reactivity:</b>	(+) human, mouse, and rat COX-2; (-) COX-1; other species not tested.
<b>Stability:</b>	≥1 year at -20°C
<b>Applications:</b>	Flow cytometry, immunofluorescence (IF), and western blotting (WB). The recommended starting dilution is <b>lot specific:lot specific (lot specific µg/ml)</b> for flow cytometry, IF, and WB. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.

The primary use of this antibody conjugate is for the detection of cyclooxygenase 2 (COX-2) in murine samples by direct immunolabeling. COXs catalyze the first step in the biosynthesis of prostaglandins (PGs), thromboxanes, and prostacyclins: the conversion of arachidonic acid to PGH<sub>2</sub>. Discoveries of the induction of COX by a variety of stimuli such as phorbol esters, lipopolysaccharides, and cytokines led to the hypothesis that the inducible form of COX, COX-2, is responsible for the biosynthesis of PGs under acute inflammatory conditions.<sup>1,2</sup> COX-2 is a 72 kDa protein which has been cloned from a variety of species including human, mouse, rat, and sheep.<sup>3-5</sup>

### References

1. Xie, W., Chipman, J.G., Robertson, D.L., *et al.* Expression of a mitogen-responsive gene encoding prostaglandin synthase is regulated by mRNA splicing. *Proc. Natl. Acad. Sci. USA* **88**, 2692-2696 (1991).
2. Smith, W.L., Garavito, R.M., and DeWitt, D.L. Prostaglandin endoperoxide H synthases (cyclooxygenases)-1 and -2. *J. Biol. Chem.* **271**, 33157-33160 (1996).
3. Hla, T. and Neilson, K. Human cyclooxygenase-2 cDNA. *Proc. Natl. Acad. Sci. USA* **89**, 7384-7388 (1992).
4. Kujubu, D.A., Fletcher, B.S., Varnum, B.C., *et al.* TIS10, a phorbol ester tumor promoter-inducible mRNA from Swiss 3T3 cells, encodes a novel prostaglandin synthase/cyclooxygenase homologue. *J. Biol. Chem.* **266**, 12866-12872 (1991).
5. Zhang, V., O'Sullivan, M., Hussain, H., *et al.* Molecular cloning, functional expression, and selective regulation of ovine prostaglandin H synthase-2. *Biochem. Biophys. Res. Commun.* **227**, 499-506 (1996).

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