Nonsteroidal anti-inflammatory drugs (NSAIDs) inhibit the cyclooxygenase (COX) enzyme and suppress PG synthesis which are used commonly as anti-inflammatory, anti-pyretic and analgesic agents. Though NSAIDs is known to suppress incidence and progression of cancer especially colorectal cancer, the precise mechanism of their protective effect remain unknown. A wide range of mechanism about anti-tumor effect of NSAIDs have been reported. Some of them are unrelated to the inhibition of COX activity and subsequent PG formation. However, recent result from by using knockout mice and selective antagonists indicated that prostanoid receptor, especially PGE\textsubscript{2} enhances angiogenesis and tumor growth. Here, we summarize significant of PGE\textsubscript{2} signaling via EP3 receptors which exists on the stroma but on tumor cells. An EP3 receptor antagonist may be a candidate of chemopreventive agents for malignant tumor.

Rec.12/14/2004, pp26-31

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Introduction

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The prostanoid receptor subtype in angiogenesis

Host stromal prostanoid receptor signaling contributes to tumor-growth and angiogenesis
Prostanoid receptor antagonist has possibility to preventive approach for cancer and the control of inflammatory response and tumor angiogenesis.
### References


### Graphs and Diagrams

**Figure 1**: Effects of different treatments on Hb content, weight of tumor, and microvessel density.

- **A**: Hb content (mg/g) for Vehicle, EP1, EP3, and EP4.

**Figure 2**: Schematic diagram of the proposed signaling pathway in tumor and stromal cells.

- Arachidonic acid → COX-2 → PGE2
- EP3 antagonist → VEGF
- Angiogenesis → Tumor growth