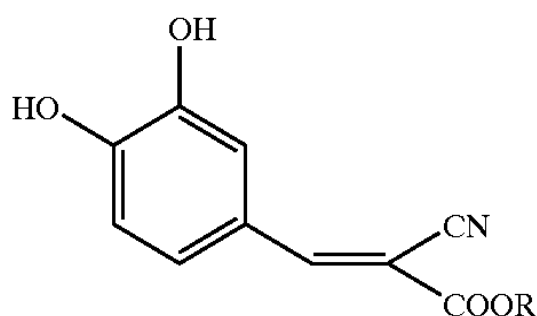


## Preventing Inflammation by Inhibiting Cox-2 Gene Transcription



cyanocinnamate

### DESCRIPTION

Excess inflammation is a contributing factor in many health conditions including cardiovascular disease, diabetes and stroke. The enzyme COX-2 is involved in the pro-inflammatory signaling cascade. Previous attempts to inhibit COX-2 activity that have focused on *post-transcriptional inhibition* have achieved suboptimal results.

This technology relates to methods of treating inflammation by administering the COX-2 *transcription inhibitor*, and caffeic acid derivative, cyanocinnamate. This easily synthesized small molecule specifically and effectively inhibits transcription of COX-2 without affecting expression other related enzymes.

### KEY ASPECTS

- Easily synthesized small molecule therapeutic for control of inflammation
- Potent inhibitor of inflammation-induced cellular damage in pancreatic  $\beta$ -cells
- Works at the transcriptional level to silence gene expression of COX-2
- Specific for COX-2 enzyme while leaving related enzymes (e.g., COX-1) unaffected

### INTELLECTUAL PROPERTY

Title	US Patent Number	Issued
Inhibition of Inflammation Via Inhibition of Cox-2 Gene Transcription	6,469,063	10/22/02

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