Figure S1. Identification of DEGs and genes associated with colitis-associated tumorigenesis by RNA sequencing. Classification of the DEGs between (A) model vs. APCP, (B) model vs. NECA and (C) NECA vs. APCP experimental groups was performed using GO annotation analysis. (D) The expression levels of 8 genes from RNA sequencing results were consistent with the aforementioned findings. DEGs, differentially-expressed genes; GO, Gene Ontology; APCP, adenosine 5'-( $\alpha, \beta$-methylene) diphosphate; NECA, 1-(6-amino-9H-purin-9-yl)-1-deoxy-N-ethyl- $\beta$-D-ribofuranuronamide.




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Cellular processes
Environmental information processing
Genetic information processing
Human diseases
Metabolism
Organismal systems
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Figure S2. Expression of ALOX15 is consistent with the overexpression of CD73 in HCT8 and RKO cells. Quantitative PCR was used to evaluate the expression of (A) CD73 and (B) ALOX15 in human colorectal cancer cell lines. Values are expressed as the mean $\pm$ SEM. ${ }^{*} \mathrm{P}<0.05$. ALOX15, arachidonate 15-lipoxygenase. Ov-CD73, overexpression of CD73.



Table SI. Score system of humane endpoints.

| Score | Body weight | Activity | Temperature | Posture |  |
| :--- | :---: | :--- | :--- | :--- | :--- |

Primer sequence ( $5^{\prime}-3^{\prime}$ )

| Gene | Forward | Reverse |
| :--- | :--- | :--- |
| ALOX15 | GGCTCCAACAACGAGGTCTAC | CCCAAGGTATTCTGACACATCC |
| Nat81 | ATCTTCTACGACGGCATCTTGG | GCGGGTCACAGCAAAACAG |
| Bcl2115 | CTGCTAACCGGAACCTATCGG | TCCAGCTCTCCATTGAACTGA |
| TNF- $\alpha$ | GCCAGCCGATGGGTTGTAC | TTGACGG CAGAGAGGAGGTT |
| IL-6 | AACCACGGCCTTCCCTACTT | TCTTTTCTCATTTCCACGATTTCC |
| IL-10 | CAGGGCCCTTTGCTATGGT | TCTGAGCTGCTGCAGGAATG |
| TNF- $\beta$ | CCCATCCACTCCCTCAGAAG | CATGTCGGAGAAAGGCACGAT |
| GAPDH | TCAATGAAGGGGTCGTTGAT | CGTCCCGTAGACAAAATGGT |

ALOX15, arachidonate 15-lipoxygenase; Nat81, N -acetylaspartate synthetase; Bcl2115, Bcl-2-like protein 15 ; TNF, tumor necrosis factor; IL, interleukin.

