

Supplementary Table 1

PTGS2/COX2 expression in CRC (literature)

Reference	n° patients	Mucosa	CRC	Method	Antibody	Immunogen	Source
[1]	37 (25 CRC)	8%	76%	WB	rabbit antiserum	full ovine PTGS2	Home - made
[2]	39	not reported	56,4% (90% Rect, 21% Col)	WB	nd	hu PTGS2, region not specified	Santa Cruz
[3]	30	23%	73%	WB	ab1519 rabbit polyclonal	carboxy-terminal peptide (rat), sequence not available	Abcam
[4]	31	negative (IHC) 20% (WB 3/15)	96,7% (IHC 30/31) 93% (WB 14/15)	IHC WB	SC-1745 (IHC) goat polyclonal nd (WB) polyclonal	carboxy-terminal peptide (hu), sequence not available	Santa Cruz (IHC) Cayman (WB)
[5]	35 (31 analyzed)	nd	87%	IHC	160106 rabbit polyclonal	AA 570-598 (murine)	Cayman
[6]	76	nd	81,5%	IHC	rabbit antiserum	AA 588-600 (hu)	Home- made
[7]	112	17%	72%	IHC	nd, rabbit polyclonal (SC-7951? †)	AA 50-111 hu	Cayman (Santa Cruz? †)
[8]	170 (139 CRC)	24,1% (7/29)	84,9%	IHC	nd	nd	Cayman
[9]	288	10% (1/10)	70,8% (204/288)	IHC	nd	nd	Cayman
[10]	747	nd	85,3%	IHC	SC-1745 goat polyclonal	carboxy-terminal peptide (hu), sequence not available	Santa Cruz
[11]	167 (23 CRC)	negative	40%	IHC	clone CX-294 mouse mAb	AA 580-598 hu	Dako
[12]	636	nd	67%	IHC	160112 (‡) mouse mAb	AA 580-599 hu	Cayman
[13]	758 (207 CRC)	nd	85% (65% strong)	IHC	160112 (‡) mouse mAb	AA 580-599 hu	Cayman
[14]	662	nd	83%	IHC	160112 (‡) mouse mAb	AA 580-599 hu	Cayman
[15]	118 (Col) 85 (Rect)	nd	93% (Col) 87% (Rect)	IHC	SP21 rabbit mAb	carboxy-terminal peptide (rat), sequence not available	Thermo Fisher Scientific
[16]	1026	12% (6/50)	77.9% (800/1026)	IHC	SP21 rabbit mAb	carboxy-terminal peptide (rat), sequence not available	Zhongshan Golden Bridge Biotechnology

† At present the only PTGS2 antibody raised against AA 50-111 is SC-7951 (Santa Cruz), we do not know if a similar product was available from Cayman in 2002.

‡ These papers used the same Cayman antibody, but we were unable to categorize it. Prof. Ogino has kindly provided us the exact product identity.

References:

1. Kargman SL, O'Neill GP, Vickers PJ, Evans JF, Mancini JA and Jothy S: Expression of Prostaglandin G/H Synthase-1 and -2 Protein in Human Colon Cancer. *Cancer Res* 55: 2556–2559, 1995.
2. Dimberg J, Samuelsson A, Hugander A and Soderkvist P: Differential expression of cyclooxygenase 2 in human colorectal cancer. *Gut* 45: 730–732, 1999.
3. Asting AG, Farivar A, Iresjö B-M, Svensson H, Gustavsson B and Lundholm K: EGF receptor and COX-1/COX-2 enzyme proteins as related to corresponding mRNAs in human per-operative biopsies of colorectal cancer. *BMC Cancer* 13: 511, 2013.
4. Cianchi F, Cortesini C, Bechi P, *et al.*: Up-regulation of cyclooxygenase 2 gene expression correlates with tumor angiogenesis in human colorectal cancer. *Gastroenterology* 121: 1339–1347, 2001.
5. Shattuck-Brandt RL, Lamps LW, Heppner Goss KJ, DuBois RN and Matrisian LM: Differential expression of

matrilysin and cyclooxygenase-2 in intestinal and colorectal neoplasms. *Mol Carcinog* 24: 177–187, 1999.

6. Sheehan KM, Gulmann C, Eichler GS, *et al.*: Signal pathway profiling of epithelial and stromal compartments of colonic carcinoma reveals epithelial-mesenchymal transition. *Oncogene* 27: 323–331, 2008.
7. Zhang H and Sun X-F: Overexpression of cyclooxygenase-2 correlates with advanced stages of colorectal cancer. *Am J Gastroenterol* 97: 1037–1041, 2002.
8. Wu A-W, Gu J, Ji J-F, Li Z-F and Xu G-W: Role of COX-2 in carcinogenesis of colorectal cancer and its relationship with tumor biological characteristics and patients' prognosis. *World J Gastroenterol* 9: 1990–1994, 2003.
9. Soumaoro LT, Uetake H, Higuchi T, Takagi Y, Enomoto M and Sugihara K: Cyclooxygenase-2 expression: a significant prognostic indicator for patients with colorectal cancer. *Clin Cancer Res Off J Am Assoc Cancer Res* 10: 8465–8471, 2004.
10. Fux R, Schwab M, Thon K-P, Gleiter CH and Fritz P: Cyclooxygenase-2 Expression in Human Colorectal Cancer Is Unrelated to Overall Patient Survival. *Clin Cancer Res* 11: 4754–4760, 2005.
11. Balbinotti RA, Ribeiro U, Sakai P, *et al.*: hMLH1, hMSH2 and cyclooxygenase-2 (cox-2) in sporadic colorectal polyps. *Anticancer Res* 27: 4465–4471, 2007.
12. Chan AT, Ogino S and Fuchs CS: Aspirin and the Risk of Colorectal Cancer in Relation to the Expression of COX-2. *N Engl J Med* 356: 2131–2142, 2007.
13. Kawasaki T, Nosho K, Ohnishi M, *et al.*: Cyclooxygenase-2 overexpression is common in serrated and non-serrated colorectal adenoma, but uncommon in hyperplastic polyp and sessile serrated polyp/adenoma. *BMC Cancer* 8: 33, 2008.
14. Ogino S, Kirkner GJ, Nosho K, *et al.*: Cyclooxygenase-2 expression is an independent predictor of poor prognosis in colon cancer. *Clin Cancer Res Off J Am Assoc Cancer Res* 14: 8221–8227, 2008.
15. Lobo Prabhu KC, Vu L, Chan SK, Phang T, Gown A, Jones SJ and Wiseman SM: Predictive utility of cyclooxygenase-2 expression by colon and rectal cancer. *Am J Surg* 207: 712–716, 2014.
16. Wu Q-B and Sun G-P: Expression of COX-2 and HER-2 in colorectal cancer and their correlation. *World J Gastroenterol* 21: 6206–6214, 2015.