## Online Resource 3 Evaluation and staining results of E-cadherin

## **Evaluation of E-cadherin Immunostaining**

The quantity and intensity of immunoreactivity of E-cadherin in tumor cells was evaluated by applying an immunoreactivity scoring system (IRS) that consists of two components. Category A documented the intensity of immunostaining as 0 (no immunostaining), 1 (weak), 2 (moderate), and 3 (strong). Category B documented the percentage of immunoreactive cells as 0 (no immunoreactive cells), 1 (few scattered immunoreactive cells, <1%), 2 (1% to 10%), 3 (11% to 50%), 4 (51% to 80%), and 5 (>80%). The addition of category A and B resulted in an immunoreactivity scoring system ranging from 0 to 8 for each individual case.

## Staining results of E-cadherin

E-cadherin was expressed in 404 of 443 cases (91.2%) in tumor cells. The percentage of stained tumor cells ranged from 0 to 5 (median 4), the staining intensity ranged from 0 to 3 (median 3). The tumor cell IRS ranged from 0 to 8 (median 6). Dichotomized by the median, 119 cases (26.9%) were classified as positive and 324 cases (73.1%) were classified as negative.

## Score distribution for E-cadherin:

Cases	valid (%)	missing (%)	Distribution of score								Median Score	Split at median		
			[n(%)]									negative	positive	
			0	1	2	3	4	5	6	7	8	Score	[n(%)]	[n(%)]
482	443	39	36	0	4	11	13	54	85	121	119	7	324	119
	(91.9)	(8.1)	(8.1)	(0)	(0.9)	(2.5)	(2.9)	(11.2)	(19.2)	(27.3)	(26.9)		(73.1)	(26.9)

