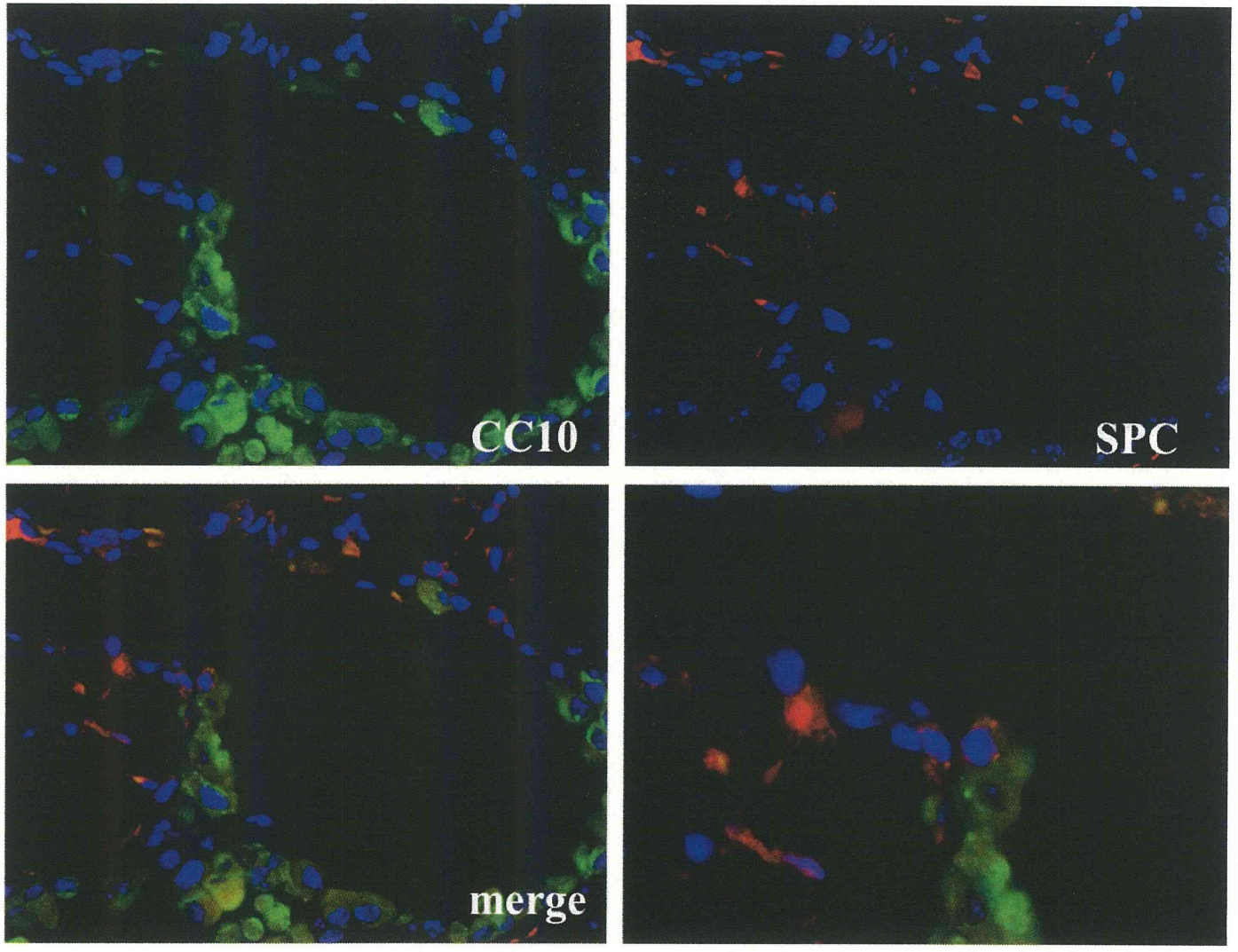

Figure 15. Identification of BASC in acetone-treated mice terminal bronchiole

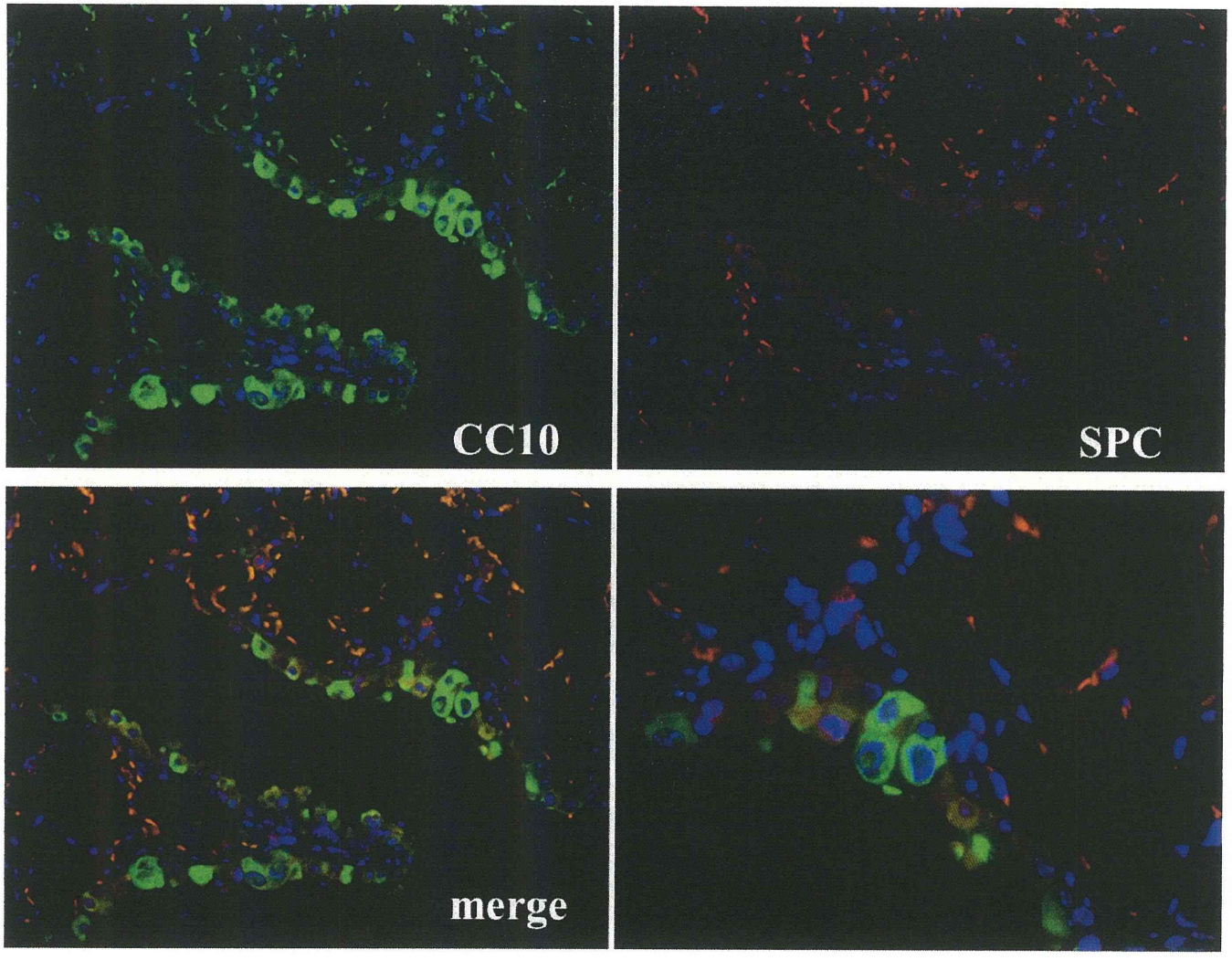

Figure 16. Identification of BASC in NTCU-treated mice terminal bronchiole

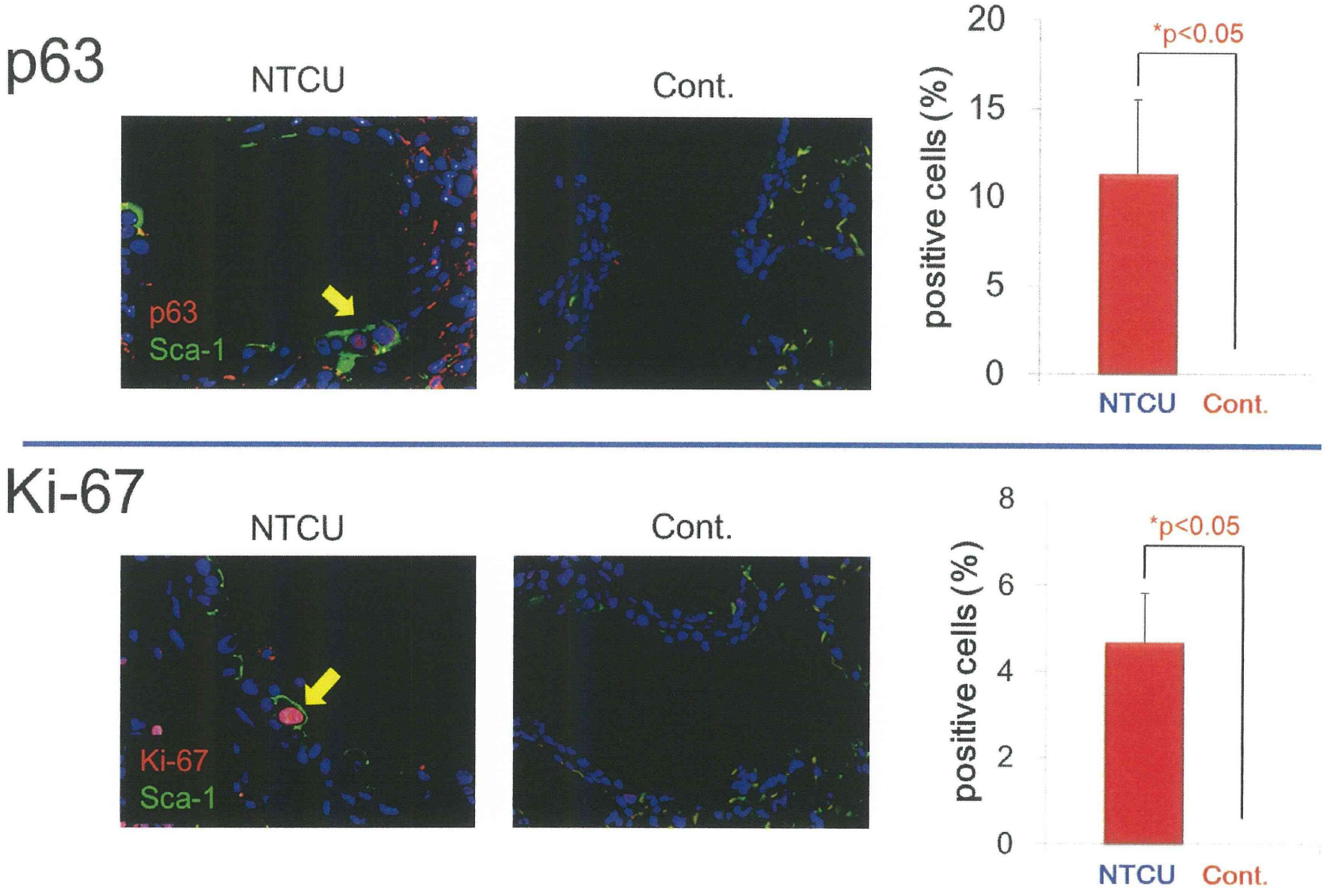

Figure 17. BASCにおけるp63及びKi-67染色の検討

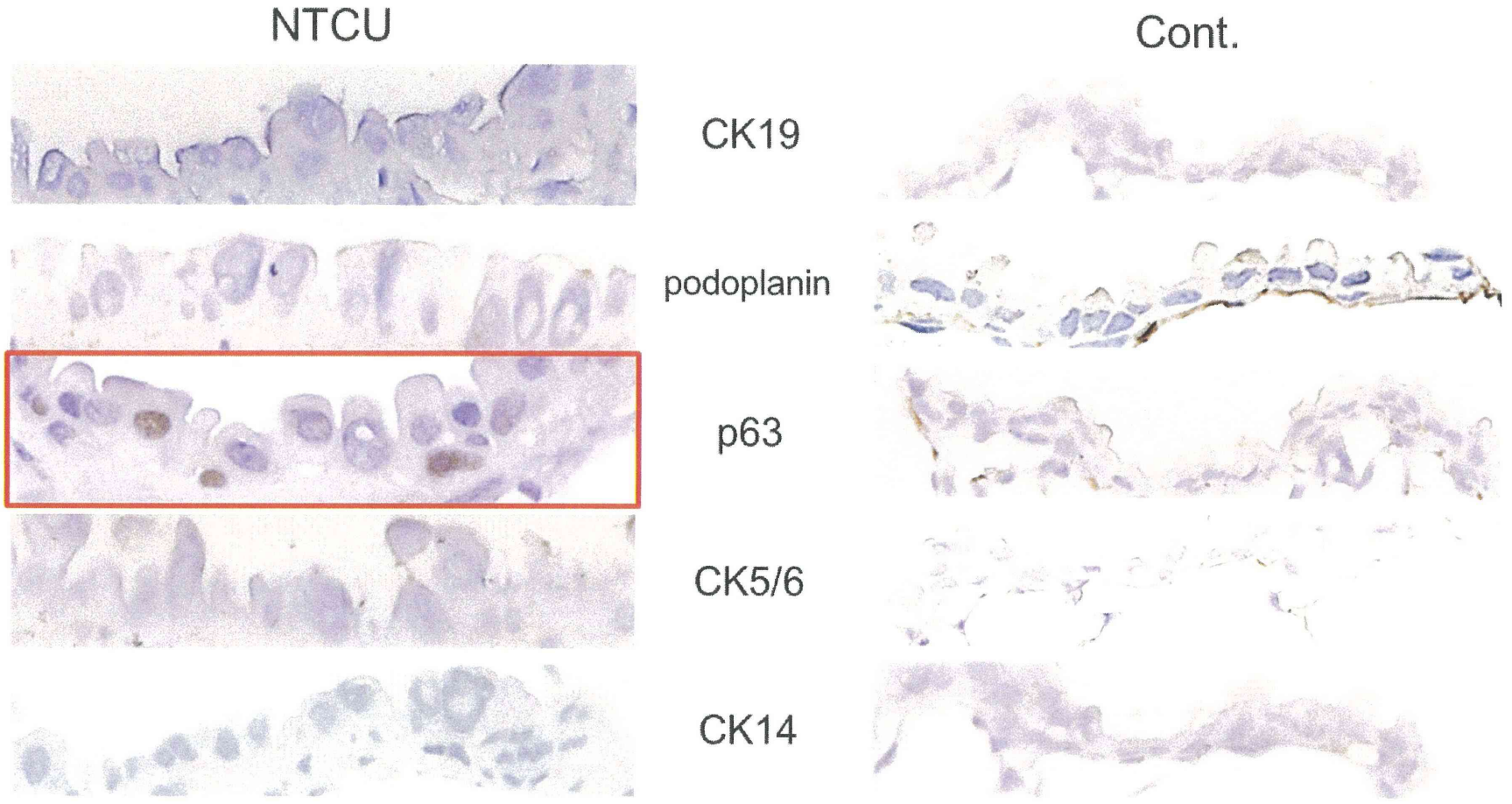

Figure 18. 細気管支における扁平上皮分化マーカーの検討

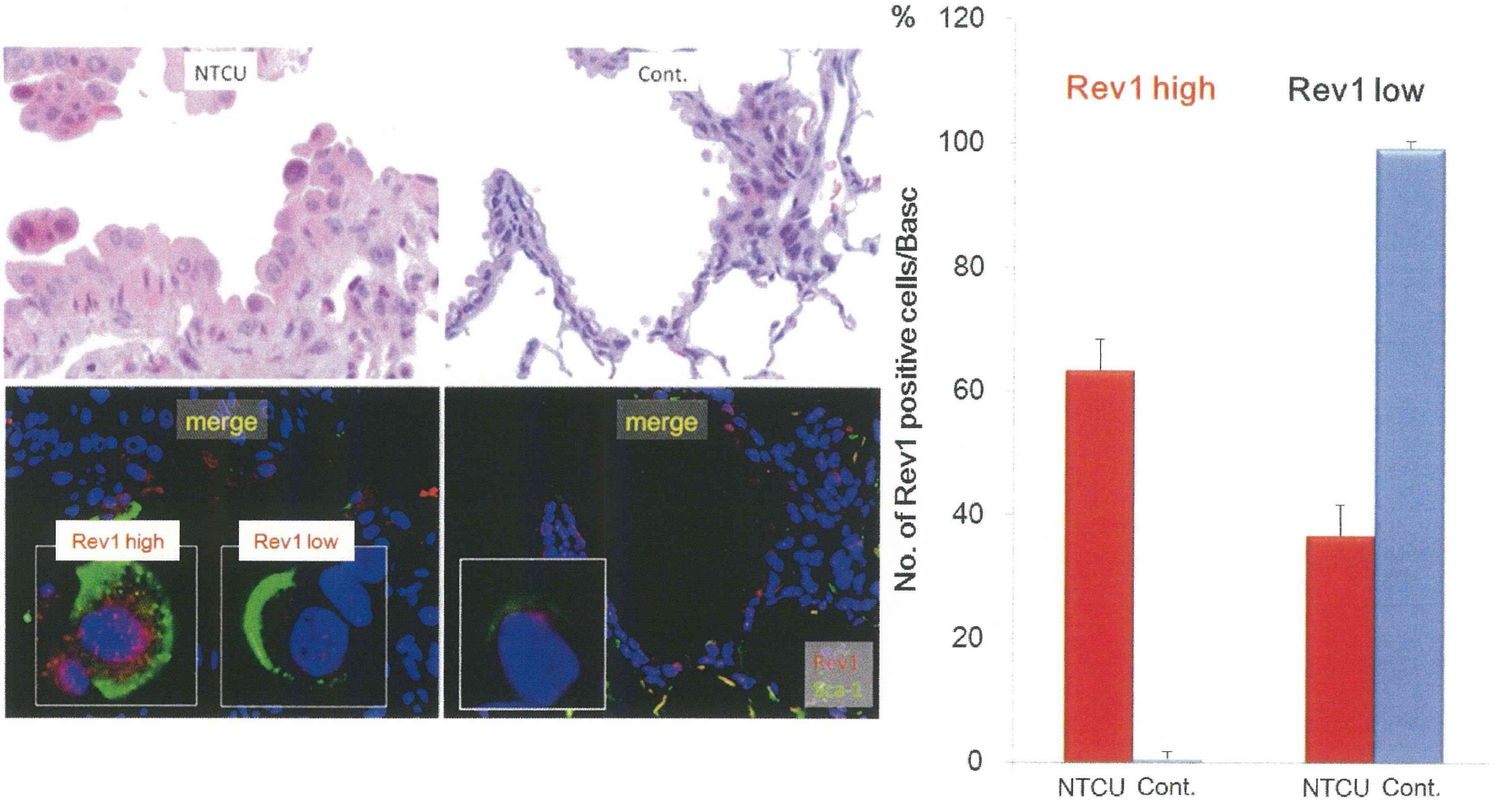

Figure 19. BASCにおけるRev1蛋白発現の検討

Table 1
Effects dammar resin on body weight (g)

Treatment	No. of	week									
Dammar resin	animals	0	1	2	3	4	5	6	7	8	9
DMBDD +											
0	15	142.9	159.3	183.2	174.6	189.7	224.8	251.2	266.4	280.0	289.0
0.03%	15	143.9	160.2	183.3	175.0	183.6	220.2	247.6	263.0	279.2	288.9
2%	15	144.0	161.6	185.1	176.7	188.0	211.4	233.4	249.4*	259.6*	266.1*
DMBDD −											
0	6	145.0	190.7	219.3	249.4	279.3	298.0	316.4	328.1	340.0	347.4
2%	6	143.0	189.0	215.0	245.3	272.8	277.8	293.3*	304.2*	316.6	316.1*

*Significantly different from control group.

Table 1 (*continued)*
Effects of dammar resin on body weight (g)

Treatment	No. of	week								
Dammar resin	animals	10	11	12	13	14	15	16	17	18
DMBDD+										
0	15	293.9	305.0	311.2	317.3	322.7	333.2	353.7	345.0	332.2
0.03%	15	293.8	309.4	316.7	321.5	329.1	332.6	346.4	353.0	337.0
2%	15	268.6*	276.6*	277.0*	280.0*	285.4*	291.7*	294.7*	299.9*	286.3*
DMBDD−										
0	6	351.9	365.9	373.1	376.5	383.4	393.2	400.5	403.5	389.8
2%	6	322.1*	334.9*	337.5*	338.4*	346.8*	355.8*	362.4*	365.9*	352.0*

*Significantly different from control group.

Table 2
Effects of dammar resin on final body weight (g)

Treatment Dammar resin		No. of animals	Final body weigth(g)
DMBDD+			
	0	15	333.2±18.1
	0.03%	15	337.0±15.6
	2%	15	286..3±11.9 *
DMBDD−			
	0	6	389.8±13.9
	2%	6	352.0±19.3 *

*Significantly different from control group.

Table 3 Food intake (g/day/rat)

Treatment	No. of	week								
Dammar resin	animals	1	2	3	4	5	6	7	8	9
DMBDD+										
0	15	9.8	12.1	9.4	7.7	15.3	16.3	15.3	14.2	15.2
0.03%	15	10.1	11.8*	9.3	7.8	14.1	15.7	14.9	13.8	14.9
2%	15	10.1	12.1	9.1	6.4	14.5	12.6*	15.5	14.0	15.3
DMBDD−										
0	6	15.4	16.4	17.6	18.0	18.7	16.3	16.3	14.9	15.9
2%	6	15.2	16.5	17.6	18.3	17.7*	13.0*	15.3	14.1	14.3

*Significantly different from control group.

Table 3 (*continued)*
Food intake (g/day/rat)

Treatment	No. of	week								
Dammar resin	animals	10	11	12	13	14	15	16	17	18
DMBDD+										
0	15	14.6	15.0	14.2	14.7	15.0	14.4	14.8	15.0	14.6
0.03%	15	14.6	15.1	14.6	15.0	15.5	14.3	14.8	15.6	15.5
2%	15	13.9	13.2*	12.6	12.7*	13.7	11.6*	13.0*	12.8*	13.4
DMBDD−										
0	6	16.0	17.2	16.8	17.3	16.9	16.6	16.4	17.4	16.5
2%	6	13.8*	14.0*	14.1*	15.4	16.4	14.8	14.4*	16.1	15.9

*Significantly different from control group.

Table 4
Intake of Dammar resin

Treatment Dammar resin	No. of animals	Total intake of dammar resin (g/kg b.w.)	Average intake of dammar resin (g/kg b.w./day)
DMBDD+			
0	15	0	0
0.03%	15	2.047	0.016
2%	15	134.902	1.070
DMBDD−			
0	6	0	0
2%	6	138.744	1.101

Table 5
Water intake (g/day/rat)

Treatment	No. of	week								
Dammar resin	animals	1	2	3	4	5	6	7	8	9
DMBDD+										
0	15	15.0	17.6	14.0	11.7	19.7	21.9	20.7	20.1	19.7
0.03%	15	14.1	16.9	13.8	11.3	19.0	23.1	21.8	21.1	20.8
2%	15	15.6	17.7	14.5	13.5	20.5	23.3	22.9	21.6	19.8
DMBDD−										
0	6	23.3	25.0	22.4	23.0	26.5	25.2	23.8	22.7	22.1
2%	6	23.1	24.3	23.2	24.1	25.0	23.2	23.9	22.8	21.7*

*Significantly different from control group.

Table 5 (*continued)*
Water intake (g/day/rat)

Treatment	No. of	week								
Dammar resin	animals	10	11	12	13	14	15	16	17	18
DMBDD+										
0	15	19.8	19.0	18.6	19.6	19.3	21.9	19.1	21.1	21.3
0.03%	15	20.3	19.8	19.8	20.5	20.7	19.3	21.3	22.4	22.8
2%	15	18.7	17.7	16.8	17.6	17.9	18.6	17.1*	19.9	19.3
DMBDD−										
0	6	23.4	22.3	22.8	22.7	22.7	20.7	21.6	24.1	23.0
2%	6	20.3	20.0	22.8	20.0	21.3	18.8	19.5	25.0	24.3

*Significantly different from control group.

Table 6
Data on organ weights

Treatment	No. of	Liver		Kidney	
Dammar resin	animals	Absolute (g)	Relative (g)	Absolute (g)	Relative (g)
DMBDD+					
0	15	8.06±0.45	2.43±0.11	2.06±0.11	0.62±0.04
0.03%	15	8.30±0.45	2.47±0.12	2.05±0.16	0.61±0.03
2%	15	8.28±0.93	2.89±0.08 *	1.82±0.12 *	0.64±0.03
DMBDD−					
0	6	10.18±0.18	2.61±0.05	2.36±0.17	0.35±0.11
2%	6	11.07±0.51 *	3.14±0.07 *	2.20±0.12	0.30±0.02

*Significantly different from control group.

Table 6 (*continued)*
Data on organ weights

Treatment	No. of	Spleen		Heart	
Dammar resin	animals	Absolute (g)	Relative (g)	Absolute (g)	Relative (g)
DMBDD+					
0	15	0.73±0.07	0.22±0.02	0.89±0.06	0.27±0.01
0.03%	15	0.75±0.06	0.22±002	0.90±0.06	0.27±0.01
2%	15	0.67±0.06 *	0.24±0.02	0.82±0.05 *	0.29±0.02 *
DMBDD−					
0	6	0.71±0.05	018±0.02	0.99±0.05	0.25±0.01
2%	6	0.65±0.03 *	0.184±0.01	0.94±0.06	0.27±0.02

*Significantly different from control group.

Table 6 (*continued)*
Data on organ weights

Treatment		No. of	Testis	
Dammar resin		animals	Absolute (g)	Relative (g)
DMBDD−				
	0	6	3.21±0.12	0.82±0.03
	2%	6	3.07±0.14	0.87±0.03 *

*Significantly different from control group.

Table 7
Development of GST-P positive foci in livers (Diameter≧0.2 mm)

Treatment Dammar resin		No. of animals	No. of foci (No./cm2)	Area of foci (mm2/cm2)
DMBDD+				
	0	15	9.5±2.4	0.396±0.133
	0.03%	15	10.7±3.5	0.453±0.165
	2%	15	14.5±3.7*	0.721±0.263*
DMBDD−				
	0	6	0.0±0.0	0.000±0.000
	2%	6	0.0±0.0	0.000±0.000

*Significantly different from control group.

Table 8
Incidence and number of hyperplastic and neoplastic lesions in the thyroid

Group No.	Treatment Dammar resin	No. of animals	Hyperplasia, follicular cell		Adenoma follicular cell		Carcinoma follicular cell		Total tumor	
			Incidence (%)	Multiplicity	Incidence (%)	Multiplicity	Incidence (%)	Multiplicity	Incidence (%)	Multiplicity
1	0	15	15 (100)	3.1±2.2	7 (46.7)	0.7±0.9	4 (26.7)	0.3±0.5	8 (53.3)	1.0±1.1
2	0.03%	15	14 (93.3)	2.7±2.2	5 (33.3)	0.5±0.7	1 (6.7)	0.1±0.4	6 (40.0)	0.5±0.7
3	2%	15	15 (100)	2.8±2.2	6 (40.0)	0.5±0.6	1 (6.7)	0.1±0.3	7 (46.7)	0.5±0.7

Table 9
Incidence and number of hyperplastic and neoplastic lesions in the kidney

Group No.	Treatment Dammar resin	No. of animals	Atypical tuble hyperplasia		Renal cell papilloma		Renal cell carcinoma		Nephroblastoma		Total tumor	
			Incidence (%)	Multiplicity	Incidence (%)	Multiplicity	Incidence (%)	Multiplicity	Incidence (%)	Multiplicity	Incidence (%)	Multiplicity
1	0	15	11 (73.3)	1.0±0.8	0 (0)	0.0±0.0	0 (0)	0.0±0.0	1 (6.7)	0.1±0.3	0	0
2	0.03%	15	7 (46.7)	0.6±0.7	1 (6.7)	0.1±0.3	0 (0)	0.0±0.0	0 (0)	0.0±0.0	1 (6.7)	0.1±0.3
3	2%	15	5 (33.3)	0.4±0.6	2 (13.3)	0.1±0.4	0 (0)	0.0±0.0	0 (0)	0.0±0.0	2 (13.3)	0.1±0.4

Table 10
Incidence and number of hyperplastic and neoplastic lesions in the bladder

Group No.	Treatment Dammar resin	No. of animals	PN hyperplasia		Papilloma		Transitional cell carcinoma		Total tumor	
			Incidence (%)	Multiplicity	Incidence (%)	Multiplicity	Incidence (%)	Multiplicity	Icnidence (%)	Multiplicity
1	0	15	4 (26.7)	0.3±0.6	1 (6.7)	0.1±0.3	2 (13.3)	0.1±0.4	3 (20.0)	0.2±0.4
2	0.03%	15	4 (26.7)	0.3±0.5	1 (6.7)	0.1±0.3	0 (0)	0.0±0.0	1 (6.7)	0.1±0.3
3	2%	15	3 (20.0)	0.3±0.7	0 (0)	0.0±0.0	0 (0)	0.0±0.0	0 (0)	0.0±0.0