

Supplementary Table

Supplementary Table 1. General Morphological Scoring

General morphological manifestation		Score
Colon adhesion	No adhesion	0
	Mild adhesion	1
	Severe adhesion	2
Ulcer and inflammation	No ulcer and no inflammation	0
	Local congestion, no ulcer	1
	1 ulcer without congestion or bowel wall thickening	2
	1 ulcer with inflammation	3
	>2 ulcer and inflammation	4
	>2 ulcer and/or inflammation area>1cm	5
	>2 ulcer and/or inflammation area>2cm	6~8
One more damage, plus 1		

Supplementary Table 2. Histomorphological Scoring

Histomorphological manifestation		Score
Ulcer	No ulcer	0
	Ulcer area<3cm	1
	Ulcer area<3cm	2
Inflammation	No inflammation	0
	Mild inflammation	1
	Severe inflammation	2

Granuloma	No granuloma	0
	Granuloma	1
Lesion depth	No lesion	0
	Sublesion	1
	Muscular layer	2
	Serosa layer	3
Fibrosis	No fibrosis	0
	Mild fibrosis	1
	Severe fibrosis	2

Supplementary Table 3. 90 Cytokines List and Abbreviation

Number	Name	Number	Name	Number	Name
1	Activin A	37	IFN- γ	73	RELM γ
2	ACTH	38	IL-1 α	74	Resistin
3	ADFP	39	IL-1 β	75	TAL1A
4	Adiponectin/Acrp30	40	IL-1 R6/IL-1R rp2	76	TGF- β 1
5	AMPK α 1	41	IL-2	77	TGF- β 2
6	B7-1/CD80	42	IL-3	78	TGF- β 3
7	BDNF	43	IL-4	79	Thrombospondin
8	β -Catenin	44	IL-5	80	TIE-2
9	basic-FGF	45	IL-6	81	TIMP-1

10	β -NGF	46	IL-10	82	TIMP-2
11	CCR4	47	IL-12/IL-23p40	83	TIMP-3
12	CD106	48	IL-13	84	TLR4
13	CINC-2 α / β	49	Integrin α M β 2	85	TNF- α
14	CINC-3	50	Inuslin	86	TRAIL
15	CNTF	51	IP-10	87	TROY
16	CNTF R α	52	Leptin (OB)	88	Ubiquitin
17	CSK	53	LIX	89	VEGF
18	CXCR4	54	L-Selectin/CD62L	90	VEGF-C
19	EGFR	55	MCP-1		
20	EG-VEGF/PK1	56	MDC		
21	E-Selectin	57	MIF		
22	FADD	58	MIP-1 α		
23	FasLigand/TNFSF6	59	MIP-2		
24	Fas/TNFRSF6	60	MIP-3 α		
25	FGF-BP	61	MMP-13		
26	Follostatin-like -1(FSL1)	62	MMP-2		
27	Fractalkine(CX3CL1)	63	MMP-8		
28	GFR α -1	64	MuSK		

29	GFR α -2	65	Neuropilin-2
30	GM-CSF	66	NGFR
31	GrowthHormone	67	Orexin A
32	GrowthHormone R	68	Osteopontin/SPP1
33	Hepassocin	69	PDGF-AA
34	ICAM-1/CD54	70	Prolactin R
35	LCK	71	RAGE
36	IDE (InsulinDegradingEnzyme)	72	RALT/MIG-6

Note: ACTH: Adreno-cortico-tropic-hormone; ADFP: Adipocyte differentiation-related protein; AMPK: Adenosine 5'-monophosphate (AMP)-activated protein kinase; BDNF: Brain derived neurotrophic factor; FGF: Fibroblast growth factor; NGF: Nerve growth factor; CCR: CC chemokine receptor; CINC-1: Cytokine-induced neutrophil chemoattractant; CNTF: Ciliary neurotrophic factor; CNTFR: Ciliary neurotrophic factor receptor; CSK: C-Src kinase; CXCR: CX chemokine receptor; EGFR: Epidermal growth factor receptor; EG-VEGF: Endocrine gland-derived vascular endothelial growth factor; FADD: Fas-associated protein with death domain; FGF-BP: Fibroblast growth factor-binding protein; GFR: Glial cell line-derived neurotrophic factor family receptor; GM-CSF: Granulocyte-macrophage colony stimulating factor; ICAM: Intercellular cell adhesion molecule; LCK: Lymphocyte-specific protein tyrosine kinase; IDE: Insulin degrading enzyme; IFN: Interferon; IL: Interleukin; IL-1R6: Interleukin 1 receptor-6; IP: Interferon induced protein; LIX: Lipopolysaccharide-induced CXC chemokine; MCP: Monocyte chemotactic protein; MDC: Macrophage-Derived Chemokine; MIF: Macrophage migration inhibitory factor; MIP: Macrophage inflammatory protein; MMP: Matrix metalloproteinase; MuSK: Muscle skeletal receptor tyrosine kinase; NGFR: Nerve growth factor receptor;

SPP: Secreted phosphoprotein; PDGF: Platelet derived growth factor; RAGE: Receptor for advanced glycation end products; RALT/MIG: Receptor-associated late transducer/Mitogen-inducible gene; RELM: Resistin-like molecule; TAL: Tumor associated lymphocyte; TGF: Transforming growth factor; TIE: Angiopoietin receptor; TIMP: Tissue inhibitor of matrix metalloproteinase; TLR: toll-like receptor; TNF: Tumor Necrosis Factor; TRAIL: Necrosis factor related apoptosis inducing ligand; TROY: TNFRSF expressed on the mouse embryo; VEGF: Vascular endothelial growth factor

Function Cluster of Differential Cytokines

Supplementary Table 4. Major Functions of Up-regulated Cytokines Related to the Occurrence of Ulcerative Colitis

Annotation Cluster	Enrichment Score	Function	Count	P value
GOTERM_BP_FAT	6.8	regulation of apoptosis	12	1.40E-07
GOTERM_BP_FAT	6.2	negative regulation of apoptosis	9	5.80E-07
GOTERM_BP_FAT	6.19	positive regulation of signal transduction	8	2.90E-06
GOTERM_BP_FAT	5.56	regulation of phosphate metabolic process	9	3.10E-06
GOTERM_BP_FAT	5.04	positive regulation of leukocyte proliferation	6	2.70E-07
GOTERM_BP_FAT	4.43	positive regulation of lymphocyte proliferation	5	9.60E-06
GOTERM_BP_FAT	4.43	positive regulation of mononuclear cell proliferation	5	1.00E-05
GOTERM_BP_FAT	4.03	positive regulation of apoptosis	7	8.90E-05
GOTERM_BP_FAT	3.29	positive regulation of T cell proliferation	4	1.20E-04
GOTERM_BP_FAT	3.27	positive regulation of tyrosine phosphorylation of Stat5 protein	3	1.80E-04

GOTERM_BP_FAT	3.07	angiogenesis	5	1.70E-04
GOTERM_BP_FAT	2.67	chemotaxis	4	9.00E-04
GOTERM_BP_FAT	6.8	regulation of apoptosis	12	1.40E-07
GOTERM_BP_FAT	6.2	negative regulation of apoptosis	9	5.80E-07
GOTERM_BP_FAT	6.19	positive regulation of signal transduction	8	2.90E-06
GOTERM_BP_FAT	5.56	regulation of phosphate metabolic process	9	3.10E-06

Supplementary Table5. Major Functions Cluster of Down-regulated Cytokines Related to the Occurrence of Ulcerative Colitis

Annotation Cluster	Enrichment Score	Function	Count	P Value
GOTERM_BP_FAT	11.62	regulation of apoptosis	17	2.00E-12
GOTERM_BP_FAT	10.79	positive regulation of phosphorylation	10	4.70E-12
GOTERM_BP_FAT	8.63	positive regulation of protein modification process	10	5.60E-10
GOTERM_BP_FAT	8.16	cell migration	11	7.30E-10
GOTERM_BP_FAT	7.23	regulation of phosphorylation	11	4.60E-08
GOTERM_BP_FAT	6.89	positive regulation of apoptosis	10	1.20E-07
GOTERM_BP_FAT	5.94	positive regulation of protein transport	6	2.50E-07
GOTERM_BP_FAT	5.71	negative regulation of apoptosis	9	1.80E-06
GOTERM_BP_FAT	4.86	positive regulation of JAK-STAT cascade	5	4.10E-07
GOTERM_BP_FAT	4.64	platelet alpha granule lumen	5	4.80E-06

GOTERM_BP_FAT	4.25	positive regulation of tyrosine phosphorylation of STAT protein	4	1.60E-05
GOTERM_BP_FAT	3.91	chemokine activity	4	7.40E-05
GOTERM_BP_FAT	3.72	salivary gland morphogenesis	4	5.90E-05
GOTERM_BP_FAT	3.66	regulation of interleukin-6 production	4	1.00E-04
GOTERM_BP_FAT	3.58	positive regulation of blood vessel endothelial cell migration	3	1.00E-04
GOTERM_BP_FAT	3.45	positive regulation of cell migration	5	9.60E-05
GOTERM_BP_FAT	3.06	positive regulation of NF-kappaB transcription factor activity	4	1.00E-04
GOTERM_BP_FAT	2.84	protein complex biogenesis	7	6.70E-04
GOTERM_BP_FAT	2.83	positive regulation of MAP kinase activity	5	6.10E-05
GOTERM_BP_FAT	2.59	positive regulation of steroid biosynthetic process	3	1.40E-04
GOTERM_BP_FAT	2.53	protein amino acid phosphorylation	8	9.70E-04
GOTERM_BP_FAT	2.26	angiogenesis	4	1.70E-04
GOTERM_BP_FAT	2.06	protein import into nucleus, translocation	4	4.70E-05

Supplementary Table 6. Major Functions of Up-regulated Cytokines Related to the Effects of Herb-partitioned Moxibustion in Treating Ulcerative Colitis

Annotation Cluster	Enrichment Score	Function	Count	P Value
GOTERM_BP_FAT	4.16	positive regulation of cytokine biosynthetic process	4	1.40E-06
GOTERM_BP_FAT	4.16	positive regulation of signal transduction	4	4.20E-04

GOTERM_BP_FAT	4.14	regulation of cell proliferation	5	2.80E-04
GOTERM_BP_FAT	3.49	positive regulation of phosphorylation	4	2.20E-05
GOTERM_BP_FAT	3.49	positive regulation of cell proliferation	4	1.00E-03
GOTERM_BP_FAT	3.49	regulation of apoptosis	4	5.20E-03
GOTERM_BP_FAT	3.22	regulation of cytokine secretion	3	8.60E-05
GOTERM_BP_FAT	3.22	regulation of steroid metabolic process	3	2.00E-04
GOTERM_BP_FAT	3.22	positive regulation of lipid metabolic process	3	3.10E-04
GOTERM_BP_FAT	3.16	positive regulation of MAPKKK cascade	3	6.20E-04
GOTERM_BP_FAT	3.16	positive regulation of I-kappaB kinase/NF-kappaB cascade	3	9.30E-04
GOTERM_BP_FAT	2.79	positive regulation of neurological system process	3	2.30E-04
GOTERM_BP_FAT	2.79	regulation of smooth muscle cell proliferation	3	5.30E-04
GOTERM_BP_FAT	2.44	positive regulation of cell cycle	3	4.70E-04
GOTERM_BP_FAT	2.25	defense response to bacterium	3	1.20E-03
GOTERM_BP_FAT	2.25	positive regulation of protein amino acid phosphorylation	3	1.30E-03
GOTERM_BP_FAT	2.16	protein amino acid phosphorylation	4	4.00E-03

Supplementary Table 7. Major Functions of Down-regulated Cytokines Related to the Effects of Herb-partitioned Moxibustion in Treating Ulcerative Colitis

Annotation Cluster	Enrichment Score	Function	Count	P Value
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GOTERM_BP_FAT	16.06	regulation of apoptosis	28	6.70E-17
GOTERM_BP_FAT	13.78	negative regulation of apoptosis	20	1.40E-14
GOTERM_BP_FAT	12.39	positive regulation of protein amino acid phosphorylation	13	1.40E-13
GOTERM_BP_FAT	11.19	regulation of phosphorylation	19	4.10E-12
GOTERM_BP_FAT	11.15	cell migration	17	6.70E-13
GOTERM_BP_FAT	9.93	positive regulation of cellular protein metabolic process	14	2.40E-10
GOTERM_BP_FAT	9.38	neutrophil chemotaxis	8	3.00E-11
GOTERM_BP_FAT	8.23	positive regulation of lymphocyte activation	10	3.10E-09
GOTERM_BP_FAT	8.23	positive regulation of leukocyte activation	10	6.90E-09
GOTERM_BP_FAT	7.49	positive regulation of apoptosis	14	3.00E-08
GOTERM_BP_FAT	6.85	positive regulation of protein secretion	8	9.50E-10
GOTERM_BP_FAT	5.12	positive regulation of cell migration	8	7.80E-07
GOTERM_BP_FAT	4.83	positive regulation of protein kinase activity	9	1.10E-05
GOTERM_BP_FAT	4.18	hemopoietic or lymphoid organ development	9	7.60E-05
GOTERM_BP_FAT	3.69	blood vessel development	8	3.00E-04
GOTERM_BP_FAT	3.37	respiratory system development	6	5.00E-04
GOTERM_BP_FAT	3.2	positive regulation of chemotaxis	4	4.50E-04
GOTERM_BP_FAT	2.96	positive regulation of transcription factor activity	5	1.90E-04
GOTERM_BP_FAT	2.93	positive regulation of blood vessel endothelial cell migration	3	4.60E-04

GOTERM_BP_FAT	2.85	protein complex biogenesis	10	5.00E-04
GOTERM_BP_FAT	2	SMAD protein nuclear translocation	3	6.40E-04
