

## SUPPLEMENTAL TABLES

### Effects of Ole e 1 allergen on human bronchial epithelial cells cultured at air-liquid interface (No. JIACI-D-17-00149)

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**Table S1.** Differentially expressed cytokines in culture media of NHBE cells exposed to Ole e 1 at day 7 on ALI from Donor 1.

Cytokine	Description	Gene ID	UniProt Ref	Alternative name*	Side	Fold Change <sup>†</sup>
ANG	Angiogenin (EC 3.1.27.-)	283	P03950	ANG, RNASE5	Apical	0.49
BDNF	Brain-derived neurotrophic factor	627	P23560	Abrineurin	Basal	5.36
CCL23	Myeloid progenitor inhibitory factor 1	6368	P55773	MPIF, MIP3	Basal	2.05
Flt-3Ligand	Fms-related tyrosine kinase 3 ligand	2323	P49771	Flt3L	Basal	>10
Fractalkine	Fractalkine (C-X3-C motif chemokine 1)	6376	P78423	CX3CL1, FKN	Basal	5.39
FGF4	Fibroblast growth factor 4	2249	P08620	HST-1	Apical	2.24
FGF6	Fibroblast growth factor 6	2251	P10767	HST2, HBGF-6	Basal	2.32
FGF7	Fibroblast growth factor 7	2252	P21781	KGf, HBGF7	Basal	2.95
FGF9	Fibroblast growth factor 9	2254	P31371	GAF, HBGF-9	Basal	4.23
GCP-2	Granulocyte chemotactic protein 2 (C-X-C motif chemokine 6)	6372	P80162	CXCL6	Basal	2.53
G-CSF	Granulocyte colony-stimulating factor (Pluripoietin)	1440	P09919	CSF3, C17orf3	Basal	0.01
HGF	Hepatocyte growth factor (Hepatopoietin-A)	3082	P14210	HPTA	Apical	0.5
IGFBP4	Insulin-like growth factor-binding protein 4	3487	P22692	IBP4	Apical/Basal	2.04/4.98
IL-1 $\beta$	Interleukin-1 beta (IL-1 beta) (Catabolin)	3553	P01584	IL-1B, IL-1 F2	Basal	2.54
IL-5	Interleukin-5	3567	P05113	TRF	Apical/Basal	0.37/0.25
IL-7	Interleukin-7	3574	P13232		Apical/Basal	0.01/0.24
IL-15	Interleukin-15	3600	P40933		Basal	2.45
IL-16	Interleukin-16	3603	Q14005	LCF	Basal	3.16
IP-10	C-X-C motif chemokine 10 (10 kDa interferon gamma-induced protein)	3627	P02778	CXCL10, INP10	Basal	7.82
LEPTIN	Leptin (Obese protein)	3952	P41159	LEP	Basal	7.05
LIF	Leukemia inhibitory factor	3976	P15018	HILDA	Basal	8.08
LIGHT	Tumor necrosis factor ligand superfamily member 14	8740	O43557	TNFSF14	Basal	9.52
M-CSF	Macrophage colony-stimulating factor 1	1435	P09603	CSF1	Apical	0.32

MCP-1	Monocyte chemoattractant protein 1	6347	P13500	CCL2, MCAF	Basal	2.53
MCP-4	Monocyte chemoattractant protein 4	6357	Q99616	CCL13	Basal	3.74
MDC	Macrophage-derived chemokine (C-C motif chemokine 22)	6367	O00626	CCL22	Apical	0.21
MIG	C-X-C motif chemokine 9 (Monokine induced by interferon-gamma)	4283	Q07325	CXCL9	Apical/Basal	0.29/>10
MIP-1 $\delta$	C-C motif chemokine 15 (Chemokine CC-2)	6359	Q16663	CCL15, MIP5	Apical	0.5
OPG	Tumor necrosis factor receptor superfamily member 11B (Osteoprotegerin)	4982	O00300	TNFRSF11B	Basal	5.89
OPN	Osteopontin (Bone sialoprotein 1)	6696	P10451	SPP1, BNSP	Basal	5.21
PARC	Pulmonary and activation-regulated chemokine	6362	P55774	CCL18, AMAC-1	Apical/Basal	2.63/6.02
PDGF BB	Platelet-derived growth factor subunit B	5155	P01127	PDGFB, PDGF2	Basal	4.33
PLGF	Placenta growth factor	5228	P49763	PGF, PGFL	Basal	3.73
RANTES	C-C motif chemokine 5 (Eosinophil chemotactic cytokine)	6352	P13501	CCL5	Apical	0.45
SDF-1	Stromal cell-derived factor 1 (C-X-C motif chemokine 12)	6387	P48061	CXCL12 alpha	Basal	2.38
TARC	Thymus and activation-regulated chemokine (C-C motif chemokine 17)	6361	Q92583	CCL17, SCYA17	Basal	2.25
TGF $\beta$ 1	Transforming growth factor beta-1	7040	P01137	LAP	Basal	2.45
TGF $\beta$ 2	Transforming growth factor beta-2	7042	P61812	BSC-1, G-TSF	Basal	3.07
TGF $\beta$ 3	Transforming growth factor beta-3	7043	P10600		Basal	2.55
VEGF	Vascular endothelial growth factor A	7422	P15692	VEGFA	Basal	2.07

\*Alternative names are used for a protein (UniProt accession number).

<sup>†</sup>Values over 2-fold changes were considered biological relevant. Those values with fold changes higher than 10 are represented as >10-fold change. Since it is a semi-quantitative technique, >10-fold change probably is more likely to be an actual change.

**Table S2.** Differentially expressed cytokines in culture media of NHBE cells exposed to Ole e 1 at day 7 on ALI from Donor 2.

Cytokine	Description	Gene ID	UniProt Ref	Alternative name*	Side	Fold Change <sup>†</sup>
I-309	C-C motif chemokine 1 (Small-inducible cytokine A1)	6346	P22362	TCA3, CCL1	Apical	3.83
IGFBP4	Insulin-like growth factor-binding protein 4	3487	P22692	IBP4	Apical/Basal	2.80/6.46
IFN $\gamma$	Interferon gamma	3458	P01579	IFNG	Apical/Basal	2.04/5.53
IL-1 $\alpha$	Interleukin-1 alpha (Hematopoietin-1)	3552	P01583	IL-1A, IL-1 F1	Apical	3.57
IL-2	Interleukin-2	3558	P60568	TCGF	Basal	2.60
IL-4	Interleukin-4	3565	P05112	BSF1, Pitrakinra	Apical/Basal	2.12/2.70
IL-5	Interleukin-5	3567	P05113	TRF	Basal	2.58
IL-6	Interleukin-6	3569	P05231	BSF2, CDF	Basal	2.84
IL-7	Interleukin-7	3574	P13232		Basal	2.23
IL-10	Interleukin-10	3586	P22301	CSIF	Apical/Basal	>10/3.92
IL-12p40/70	Interleukin-12 subunit alpha	3592	P29459	NKSF1, IL-12A	Apical	4.33
IL-13	Interleukin-13	3596	P35225	NC30	Basal	4.53
IL-15	Interleukin-15	3600	P40933		Apical	4.41
LEPTIN	Leptin (Obese protein)	3952	P41159	LEP	Apical	4.77
MCP-1	Monocyte chemoattractant protein 1	6347	P13500	CCL2, MCAF	Apical	4.83
MCP-2	Monocyte chemoattractant protein 2	6355	P80075	CCL8	Apical/Basal	3.30/0.44
MCP-3	Monocyte chemoattractant protein 3	6354	P80098	CCL7, MARC	Apical	3.18
MIG	C-X-C motif chemokine 9 (Monokine induced by interferon-gamma)	4283	Q07325	CXCL9	Apical/Basal	0.39/0.02
MIP-1 $\delta$	C-C motif chemokine 15 (Chemokine CC-2)	6359	Q16663	CCL15, MIP5	Apical	3.57
SDF-1	Stromal cell-derived factor 1 (C-X-C motif chemokine 12)	6387	P48061	CXCL12 alpha	Basal	0.15

\*Alternative names are used for a protein (UniProt accession number).

<sup>†</sup>Values over 2-fold changes were considered biological relevant. Those values with fold changes higher than 10 are represented as >10-fold change. Since it is a semi-quantitative technique, >10-fold change probably is more likely to be an actual change.

**Table S3.** Differentially expressed cytokines in culture media of NHBE cells exposed to Ole e 1 at day 21 on ALI from Donors 1 and 2.

Cytokine	Description	Gene ID	UniProt Ref	Alternative name*	Side	Fold Change <sup>†</sup>
IGFBP1 <sup>1</sup>	Insulin-like growth factor-binding protein 1	3484	P08833	IGF1, IBP1	Basal	2.16
MIP-3α <sup>1</sup>	Macrophage inflammatory protein 3 alpha	6364	P78556	CCL20, LARC	Basal	2.52
FGF7 <sup>2</sup>	Fibroblast growth factor 7	2252	P21781	KGF,HBGF7	Apical	0.5
GROα <sup>2</sup>	Growth-regulated alpha protein (C-X-C motif chemokine 1)	2919	P09341	CXCL1, NAP3	Basal	0.37
I-309 <sup>2</sup>	C-C motif chemokine 1 (Small-inducible cytokine A1)	6346	P22362	TCA3, CCL1	Basal	0.46
IL-4 <sup>2</sup>	Interleukin-4	3565	P05112	BSF1, Pitrakinra	Apical	0.35
IL-6 <sup>2</sup>	Interleukin-6	3569	P05231	BSF2, CDF	Basal	>10
MCP-1 <sup>2</sup>	Monocyte chemoattractant protein 1	6347	P13500	CCL2, MCAF	Apical	0.38
MIG <sup>2</sup>	C-X-C motif chemokine 9 (Monokine induced by interferon-gamma)	4283	Q07325	CXCL9	Apical	4.32
TGFβ1 <sup>2</sup>	Transforming growth factor beta-1	7040	P01137	LAP	Apical	0.48

\*Alternative names are used for a protein (UniProt accession number.)

<sup>†</sup>Values over 2-fold changes were considered biological relevant. Those values with fold changes higher than 10 are represented as >10-fold change. Since it is a semi-quantitative technique, >10-fold change probably is more likely to be an actual change.

<sup>1</sup>Donor 1 and<sup>2</sup>Donor 2.