

Additional file 1. Expression pattern of biological molecules in lung tissue obtained from patients with IPAH and related pathways. Continued on next page.

[Pathway Name, ID*]	Regulation	Authors
[Signaling by BMP, REACT_12034]		
BMP2: bone morphogenetic protein receptor, type II	Down	Rajkumar R ¹⁵
[Signaling by TGF beta, REACT_6844]		
TGFBR2: transforming growth factor, beta receptor 2	Down	Fantozzi I ¹⁶
TGFBR1: transforming growth factor, beta receptor 1	Down	Fantozzi I ¹⁶
[Jak-STAT signaling, map04630]		
CCL2: chemokine ligand 2	Up	Sanchez O ¹⁷
IL15: interleukin 15	Up	Masri FA ¹⁸
Stat3: signal transducer and activator of transcription 3	UP	Masri FA ¹⁸
IL13RA2: interleukin 13 receptor, alpha 2	Up	Hecker M ¹⁹
MIR204: microRNA 204	Down	Courboulin A ²⁰
[Hemostasis, REACT_604]		
PF4: platelet factor 4	Up	Rajkumar R ¹⁵
F2RL3: coagulation factor II receptor-like 3	Up	Rajkumar R ¹⁵
P2RY1: purinergic receptor P2Y	Up	Rajkumar R ¹⁵
ITPR1: inositol 1,4,5-trisphosphate receptor	Up	Fantozzi I ¹⁶
TEK: endothelial-specific receptor tyrosine kinase	UP	Dewachter L ²¹
TRPC6: transient receptor potential cation channel, subfamily C, member 6	UP	Yu Y ²²
[Response to hypoxia, GO:0001666]		
MMP2: matrix metalloproteinase 2	UP	Lepetit H ²³
SLC6A4: solute carrier family 6, member 4	UP	Eddahibi S ²⁴
[Signaling by PDGF, REACT_16888]		
PDGFB: platelet-derived growth factor beta polypeptide	Up	Perros F ²⁵
PDGFRA: platelet-derived growth factor receptor, alpha polypeptide	UP	Perros F ²⁵
PDGFRB: platelet-derived growth factor receptor, beta polypeptide	Up	Perros F ²⁵
[Signaling by VEGF, REACT_12529]		
VEGFA: vascular endothelial growth factor A	Up	Rajkumar R ¹⁵
PKCA: PRKCA protein kinase C, alpha	Up	Do e Z ²⁶
PKCD: PRKCA protein kinase C, delta	Up	Do e Z ²⁶

* Accession number of Reactome, KEGG, and GO.

Additional file 1. Expression pattern of biological molecules in lung tissue obtained from patients with IPAH and related pathways. Continued from previous page.

[Pathway Name, ID*]	Regulation	Authors
[Wnt/PCP pathway, map04310]		
WNT11: wingless-related MMTV integration site 11	Up	Laumanns IP ²⁷
AKT1: v-akt murine thymoma viral oncogene homolog 1	Up	Laumanns IP ²⁷
DAAM1: dishevelled associated activator of morphogenesis 1	Up	Laumanns IP ²⁷
[ROCK activation by Rho, REACT_19389]		
ROCK1: Rho-associated, coiled-coil containing protein kinase 1	Up	Do e Z ²⁶
ROCK2: Rho-associated, coiled-coil containing protein kinase 2	Up	Do e Z ²⁶
RHOA: ras homolog gene family, member A	Up	Laumanns IP ²⁷
[Estrogen receptor signaling pathway, GO:0030520]		
ESR1: estrogen receptor 1	Up	Rajkumar R ¹⁵
[Serotonin receptor signaling pathway, GO:0007210]		
HTR2B: 5-hydroxytryptamine receptor 2B	UP	Fantozzi I ¹⁶
[Regulation of apoptotic process, GO:0042981]		
Tmod3: tropomodulin 3	Up	Rajkumar R ¹⁵
E2f1: E2F transcription factor-1	Up	Rajkumar R ¹⁵
Mybl1: A-myb myeloblastosis viral oncogene homolog 1	Up	Rajkumar R ¹⁵
Bcl2: B cell leukemia/lymphoma 2	Up	Masri FA ¹⁸
Mcl1: myeloid cell leukemia sequence 1	Up	Masri FA ¹⁸
TIMP1: tissue inhibitor of metalloproteinase 1	Up	Lepetit H ²³
HOXA5: homeobox A5	Up	Golpon HA ²⁸
Ncoa2: nuclear receptor coactivator 2	Down	Rajkumar R ¹⁵
Ppp2ca: protein phosphatase 2, catalytic subunit, α -isoform	Down	Rajkumar R ¹⁵
PTGS2: prostaglandin-endoperoxide synthase 2	Down	Rajkumar R ¹⁵
PPP1R15A: protein phosphatase 1, regulatory subunit 15A	Down	Fantozzi I ¹⁶

* Accession number of Reactome, KEGG, and GO.