

**File 1** Compound targets (PharmMapper) significantly enriched in Biocarta and KEGG pathways

## **Biocarta**

**Morin- NFAT and Hypertrophy of the heart** - coagulation factor II (thrombin) (F2), mitogen-activated protein kinase 14 (Mapk14), v-Ha-ras Harvey rat sarcoma viral oncogene homolog (hras)

**Piperine- NFAT and Hypertrophy of the heart** - FK506 binding protein 1A, 12kDa (FKBP1A), coagulation factor II (thrombin) (F2), Mapk14, Map2k1, hras

**Veratric acid- NFAT and Hypertrophy of the heart** - FK506 binding protein 1A, 12kDa (FKBP1A), Mapk14, hras, v-akt murine thymoma viral oncogene homolog 1 (akt1)

**Vanillic acid- Angiotensin II mediated activation of JNK Pathway via Pyk2 dependent signaling-** ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1) (rac1), hras, v-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian) (Src)

**Sinapic acid- Angiotensin II mediated activation of JNK Pathway via Pyk2 dependent signaling-** ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1) (rac1), hras, v-raf-1 murine leukemia viral oncogene homolog 1 (RAF1), v-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian) (Src)

**Diosgenin- NFAT and Hypertrophy of the heart** (Transcription in the broken heart)- FKBP1A, coagulation factor II (thrombin) (F2), Mapk14, Map2k1

**Diosmetin- NFAT and Hypertrophy of the heart** (Transcription in the broken heart)- GSK-3 $\beta$ , Mapk14, hras

## KEGG

**Morin- VEGF signaling pathway-** kinase insert domain receptor (a type III receptor tyrosine kinase) (KDR), Mapk14, hras, v-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian)

**Piperine- Focal adhesion-** 3-phosphoinositide dependent protein kinase-1 (PDPK1), kinase insert domain receptor (a type III receptor tyrosine kinase) (KDR), Map2k1, protein phosphatase 1, catalytic subunit, gamma isoform (Ppp1cc), hras, v-raf murine sarcoma viral oncogene homolog B1 (BRAF); **VEGF-signaling pathway-** kinase insert domain receptor (a type III receptor tyrosine kinase) (KDR), Mapk14, Map2k1, phospholipase A2, group IIA (platelets, synovial fluid) (Pla2g2a), hras

**Veratric acid- VEGF signaling pathway-** Mapk14, nitric oxide synthase 3 (endothelial cell) (NOS3), hras, v-akt murine thymoma viral oncogene homolog 1 (akt1), v-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian) (Src)

**Syringic acid- VEGF signaling pathway-** kinase insert domain receptor (a type III receptor tyrosine kinase) (KDR), Mapk14, hras, v-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian) (Src)

**Vanillic acid- VEGF signaling pathway-**cell division cycle 42 (GTP binding protein, 25kDa); cell division cycle 42 pseudogene 2 (CDC42P2, Cdc42), ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1) (rac1), hras, v-akt murine thymoma viral oncogene homolog 1 (akt1), v-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian) (Src)

**Sinapic acid- Focal adhesion-** 3-phosphoinositide dependent protein kinase-1 (PDPK1), kinase insert domain receptor (a type III receptor tyrosine kinase) (KDR), Mapk10, ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1) (rac1), ras-related C3 botulinum toxin substrate 2 (rho family, small GTP binding protein Rac2)

(rac2), hras, v-akt murine thymoma viral oncogene homolog 1 (akt1), v-raf-1 murine leukemia viral oncogene homolog 1 (RAF1), v-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian) (Src).