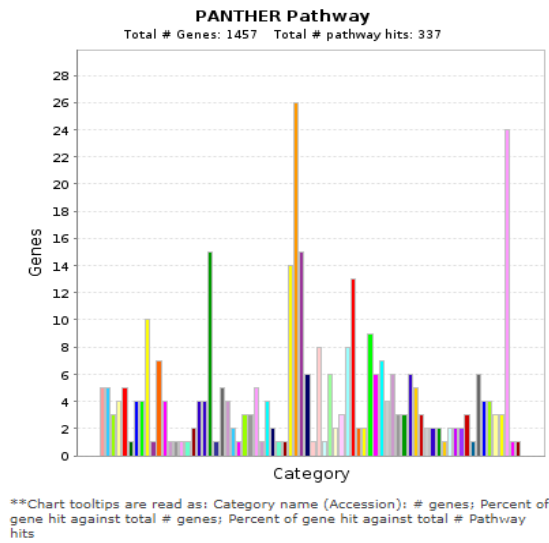


Supplementary 1. Pathway List detected from Significant DEGs of carcinoma cancer using PHANTER



Click to get gene list for a category:

- [5HT1 type receptor mediated signaling pathway \(P04373\)](#)
- [5HT2 type receptor mediated signaling pathway \(P04374\)](#)
- [5HT3 type receptor mediated signaling pathway \(P04375\)](#)
- [5HT4 type receptor mediated signaling pathway \(P04376\)](#)
- [Adrenaline and noradrenaline biosynthesis \(P00001\)](#)
- [Allantoin degradation \(P02725\)](#)
- [Alpha adrenergic receptor signaling pathway \(P00002\)](#)
- [Alzheimer disease-amyloid secretase pathway \(P00003\)](#)
- [Alzheimer disease-presenilin pathway \(P00004\)](#)
- [Androgen/estrogene/progesterone biosynthesis \(P02727\)](#)
- [Angiogenesis \(P00005\)](#)
- [Apoptosis signaling pathway \(P00006\)](#)
- [Axon guidance mediated by Slit/Robo \(P00008\)](#)
- [Axon guidance mediated by netrin \(P00009\)](#)
- [Beta1 adrenergic receptor signaling pathway \(P04377\)](#)
- [Beta2 adrenergic receptor signaling pathway \(P04378\)](#)
- [Beta3 adrenergic receptor signaling pathway \(P04379\)](#)
- [Blood coagulation \(P00011\)](#)
- [CCKR signaling map \(P06959\)](#)
- [Cadherin signaling pathway \(P00012\)](#)
- [Corticotropin releasing factor receptor signaling pathway \(P04380\)](#)
- [Cytoskeletal regulation by Rho GTPase \(P00016\)](#)
- [Dopamine receptor mediated signaling pathway \(P05912\)](#)
- [EGF receptor signaling pathway \(P00018\)](#)
- [Endogenous cannabinoid signaling \(P05730\)](#)
- [Endothelin signaling pathway \(P00019\)](#)
- [Enkephalin release \(P05913\)](#)
- [FGF signaling pathway \(P00021\)](#)
- [Fructose galactose metabolism \(P02744\)](#)
- [GABA-B receptor II signaling \(P05731\)](#)
- [Gamma-aminobutyric acid synthesis \(P04384\)](#)
- [General transcription by RNA polymerase I \(P00022\)](#)
- [General transcription regulation \(P00023\)](#)
- [Gonadotropin-releasing hormone receptor pathway \(P06664\)](#)
- [Heterotrimeric G-protein signaling pathway-Gi alpha and Gs alpha mediated pathway \(P00026\)](#)
- [Heterotrimeric G-protein signaling pathway-Gq alpha and Go alpha mediated pathway \(P00027\)](#)
- [Heterotrimeric G-protein signaling pathway-rod outer segment phototransduction \(P00028\)](#)
- [Histamine H1 receptor mediated signaling pathway \(P04385\)](#)
- [Huntington disease \(P00029\)](#)
- [Hypoxia response via HIF activation \(P00030\)](#)
- [Inflammation mediated by chemokine and cytokine signaling pathway \(P00031\)](#)
- [Insulin/IGF pathway-mitogen activated protein kinase kinase/MAP kinase cascade \(P00032\)](#)
- [Insulin/IGF pathway-protein kinase B signaling cascade \(P00033\)](#)
- [Integrin signalling pathway \(P00034\)](#)
- [Ionotropic glutamate receptor pathway \(P00037\)](#)
- [Metabotropic glutamate receptor group I pathway \(P00041\)](#)
- [Metabotropic glutamate receptor group II pathway \(P00040\)](#)
- [Metabotropic glutamate receptor group III pathway \(P00039\)](#)
- [Muscarinic acetylcholine receptor 1 and 3 signaling pathway \(P00042\)](#)
- [Muscarinic acetylcholine receptor 2 and 4 signaling pathway \(P00043\)](#)
- [Nicotine pharmacodynamics pathway \(P06587\)](#)
- [Nicotinic acetylcholine receptor signaling pathway \(P00044\)](#)
- [Notch signaling pathway \(P00045\)](#)
- [Opioid prodynorphin pathway \(P05916\)](#)
- [Opioid proenkephalin pathway \(P05915\)](#)
- [Opioid proopiomelanocortin pathway \(P05917\)](#)
- [Oxidative stress response \(P00046\)](#)
- [Oxytocin receptor mediated signaling pathway \(P04391\)](#)
- [PDGF signaling pathway \(P00047\)](#)
- [PI3 kinase pathway \(P00048\)](#)
- [Parkinson disease \(P00049\)](#)
- [Phenylethylamine degradation \(P02766\)](#)
- [Plasminogen activating cascade \(P00050\)](#)
- [Pyruvate metabolism \(P02772\)](#)
- [Synaptic vesicle trafficking \(P05734\)](#)
- [TCA cycle \(P00051\)](#)
- [TGF-beta signaling pathway \(P00052\)](#)
- [Thyrotropin-releasing hormone receptor signaling pathway \(P04394\)](#)
- [Transcription regulation by bZIP transcription factor \(P00055\)](#)

Supplementary 2. List of genes detected in the Inflammation Mediated by Chemokine and Cytokine Signaling pathways using PANTHER

PANTHER14.1 is generated from the 2018_04 release of [ReferenceProteome dataset](#)

PANTHER GENE LIST [Customize Gene list](#)

Convert List to: [-Select-] Send list to: [-Select-]

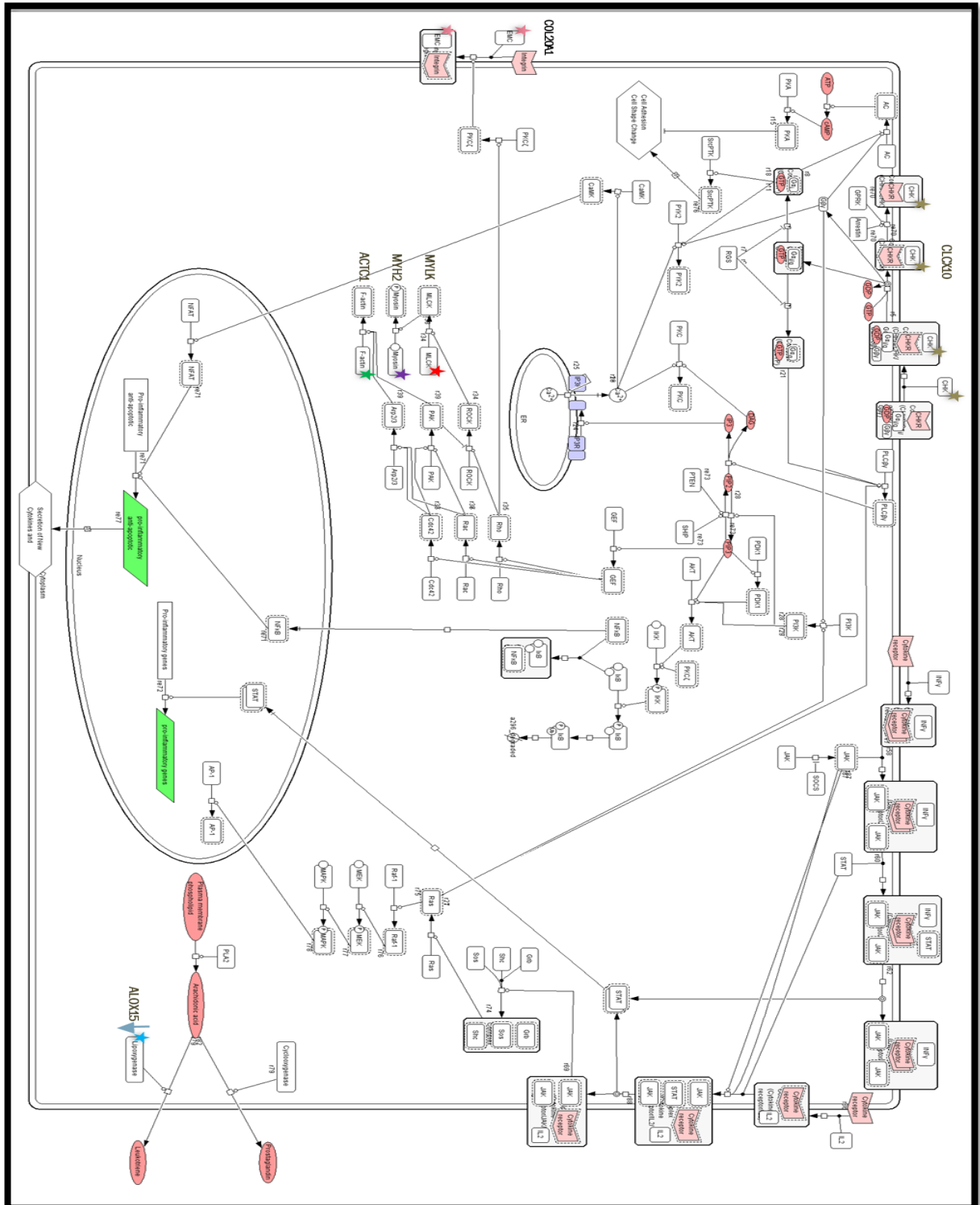
Display: 30 items per page [Refine Search](#)

Hits 1-6 of 6 [page: (1)]

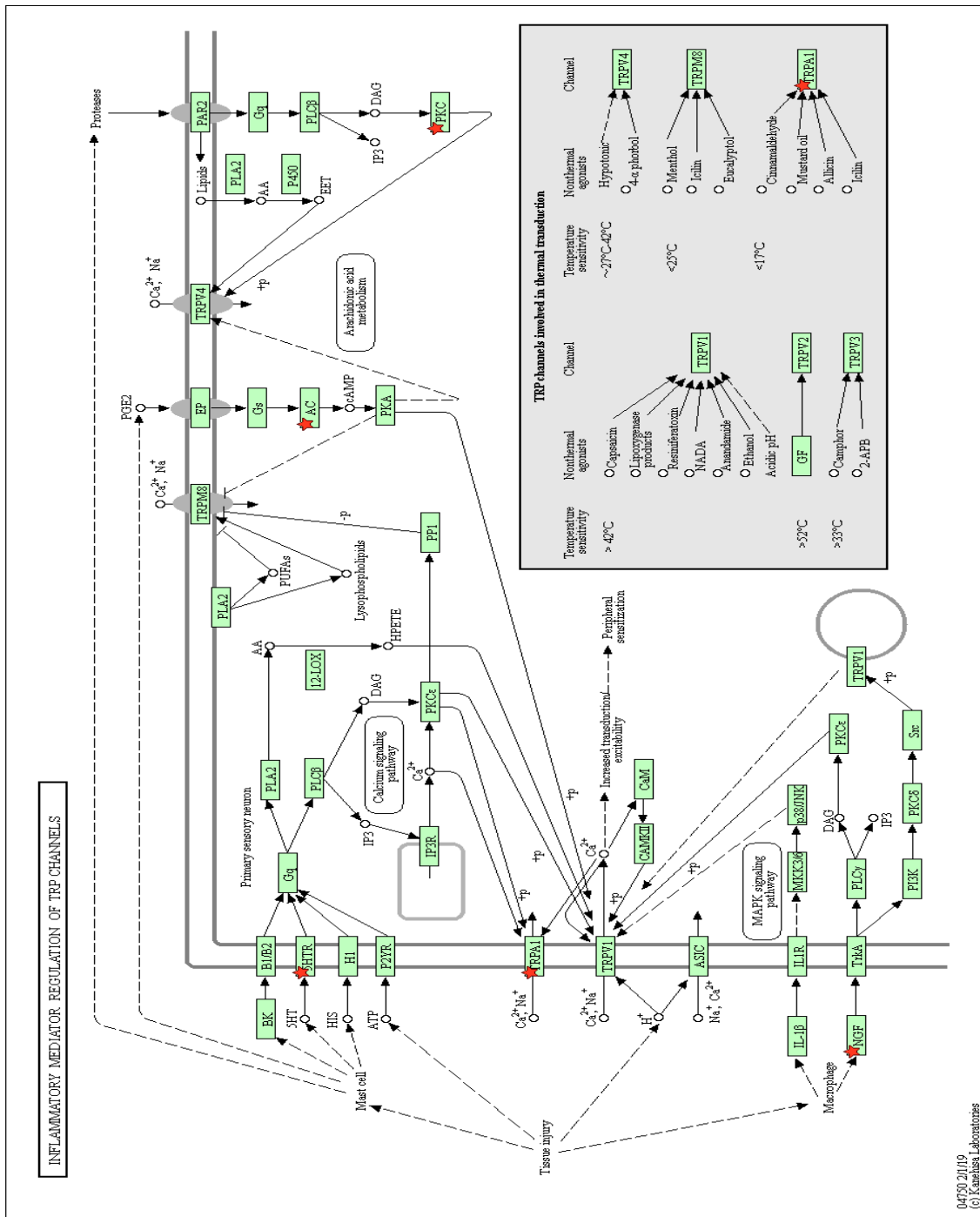
<input type="checkbox"/>	Gene ID	Mapped IDs	Gene Name Gene Symbol Ortholog	PANTHER Family/Subfamily	PANTHER Protein Class	Species
<input type="checkbox"/>	1. HUMAN HGNC=7572 UniProtKB=Q9UKX2	MYH2	Myosin-2 MYH2 ortholog	MYOSIN-2 (PTHR45615:SF39)	-	Homo sapiens
<input type="checkbox"/>	2. HUMAN HGNC=14670 UniProtKB=Q9P218	COL20A1	Collagen alpha-1(XX) chain COL20A1 ortholog	COLLAGEN ALPHA-1(XX) CHAIN (PTHR24020:SF39)	receptor	Homo sapiens
<input type="checkbox"/>	3. HUMAN HGNC=16243 UniProtKB=Q9H1R3	MYLK2	Myosin light chain kinase 2, skeletal/cardiac muscle MYLK2 ortholog	MYOSIN LIGHT CHAIN KINASE 2, SKELETAL/CARDIAC MUSCLE (PTHR24347:SF373)	-	Homo sapiens
<input type="checkbox"/>	4. HUMAN HGNC=143 UniProtKB=P68032	ACTC1	Actin, alpha cardiac muscle 1 ACTC1 ortholog	ACTIN, ALPHA CARDIAC MUSCLE 1 (PTHR11937:SF176)	actin and actin related protein	Homo sapiens
<input type="checkbox"/>	5. HUMAN HGNC=433 UniProtKB=P16050	ALOX15	Arachidonate 15-lipoxygenase ALOX15 ortholog	ARACHIDONATE 15-LIPOXYGENASE (PTHR11771:SF33)	oxygenase	Homo sapiens
<input type="checkbox"/>	6. HUMAN HGNC=10637 UniProtKB=P02778	CXCL10	C-X-C motif chemokine 10 CXCL10 ortholog	C-X-C MOTIF CHEMOKINE 10 (PTHR10179:SF47)	chemokine	Homo sapiens

Hits 1-6 of 6 [page: (1)]

Supplementary 3. Results of the analysis of the Inflammation Mediated by Chemokine and Cytokine Signaling pathways with related genes using PANTHER. Detected genes (COL20A1, ACTC1, MYH2, MYLK2, CXCL10, and ALOX15) are marked with a star symbol.



Supplementary 4. Results of the analysis of the Inflammatory Mediator Regulation of TRP Channels Pathway with related genes using DAVID. Detected genes (TRPA1, HTR2A, NGF, ADCY8, and PRKCG) are marked with a star symbol.



Supplementary 5. Results of the analysis of the *Toll-Like Receptor Signalling Pathway* with related genes using DAVID. Detected genes (CXCL9, CXCL10 and CXCL11) are marked with a star symbol.

