Supplementary Table 5. Detailed information about therapeutic effects, pharmacological actions of tern herbs contained in TGLQ and the corresponding pathways involved by TGLQ putative targets.

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| --- | --- | --- | --- | --- |
| Herbs | Roles of Herbs | Therapeutic effects | Pharmacological actions | Corresponding pathways |
| Bupleurum Chinense DC.(Chaihu, CH) | Sovereign herb | ①Soothing the liver ②Regulating qi stagnation ③Replenishing qi ④Clearing heat | ①Sedative effect②Antipyretic and analgesic effect③Antioxidation effect④Anti-inflammatory effect⑤Hypotensive effect⑥Anticoagulant effect⑦Protecting liver function⑧Improving glucose and lipid metabolism⑨Protecting stomach function⑩Improving immune system function⑪Neuroendocrine regulation  | ①GABA A receptor activation ②Nuclear Receptor transcription pathway ③SUMOylation of intracellular receptors ④Endogenous sterols ⑤Recycling of bile acids and salts ⑥PPARA activates gene expression ⑦Transcriptional regulation of white adipocyte differentiation ⑧Synthesis of bile acids and bile salts ⑨Synthesis of Prostaglandins (PG) and Thromboxanes (TX) ⑩Interleukin-1 processing ⑪HSP90 chaperone cycle for steroid hormone receptors (SHR)  |
| Ligusticum chuanxiong Hort. (Chuanxiong, CX) | Sovereign herb | ①Activating blood circulation②Regulating qi stagnation ③Dispelling the wind pathogen ④Relieving pain | ①Sedative effect②Dilating coronary artery③Improving myocardial metabolism④Anti-platelet aggregation effect⑤Anticoagulant effect⑥Antispasmodic and analgesic effect⑦Bacteriostasis ⑧Antiatherogenic effect | ①Nuclear Receptor transcription pathway ②SUMOylation of intracellular receptors ③Biosynthesis of maresin-like SPMs ④Regulation of insulin secretion ⑤Synthesis of Prostaglandins (PG) and Thromboxanes (TX) ⑥Adrenaline,noradrenaline inhibits insulin secretion ⑦CYP2E1 reactions ⑧Retinoid metabolism and transport  |
| Curcuma wenyujin Y.H.Chen et C.Ling (Yujin, YJ) | Ministerial herb | ①Activating blood circulation ②Regulating qi stagnation ③Cooling blood ④Curing jaundice⑤Relieving pain | ①Protecting liver function②Improving immune system function③Bacteriostasis④Improving lipid metabolism⑤Promoting bile acid synthesis and secretion⑥Promoting insulin secretion⑦Promoting gastric acid secretion⑧Anti-platelet aggregation effect⑨Anticoagulant effect | ①Nuclear Receptor transcription pathway ②SUMOylation of intracellular receptors ③Synthesis of bile acids and bile salts ④TRP channels ⑤Transcriptional regulation of white adipocyte differentiation ⑥PPARA activates gene expression  |
| Angelica sinensis (Oliv.)Diels (Danggui, DG) | Ministerial herb | ①Activating blood circulation ②Tonifying blood ③Moistening the intestines and relaxing the bowels ④Relieving pain ⑤Regulating menstruation | ①Antispasmodic and analgesic effect②Dilating coronary artery and improving myocardial ischemia③Antiarrhythmic effect④Anti-inflammatory effect⑤Improving lipid metabolism⑥Anti-platelet aggregation effect⑦Anticoagulant effect ⑧Promoting hematopoietic function⑨Improving immune system function⑩Protecting liver function⑪Antioxidation effect | ①GABA A receptor activation ②Citric acid cycle (TCA cycle) ③Retinoid metabolism and transport ④Nuclear Receptor transcription pathway ⑤SUMOylation of intracellular receptors ⑥Synthesis of Prostaglandins (PG) and Thromboxanes (TX) ⑦Synthesis of bile acids and bile salts ⑧PI5P, PP2A and IER3 Regulate PI3K/AKT Signaling  |

**Table 2. (continued)**

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| --- | --- | --- | --- | --- |
| Herbs | Roles of Herbs | Therapeutic effects | Pharmacological actions | Corresponding pathways |
| Paeonia lactiflora Pall.（Baishao, BS） | Ministerial herb | ①Softening the liver ②Tonifying blood ③Retaining yin ④Relieving pain ⑤Regulating menstruation | ①Antispasmodic and analgesic effect②Anti-inflammatory and anti-ulcer effect③Improving immune system function④Dilateing blood vessels⑤Anti-platelet aggregation effec⑥Bacteriostasis ⑦Promoting hematopoietic function⑧Protecting liver function⑨Sedative effect | ①Nuclear Receptor transcription pathway ②SUMOylation of intracellular receptors ③Recycling of bile acids and salts ④Synthesis of bile acids and bile salts ⑤Interleukin-4 and Interleukin-13 signaling ⑥HSP90 chaperone cycle for steroid hormone receptors (SHR) ⑦PPARA activates gene expression ⑧Transcriptional regulation of white adipocyte differentiation ⑨Glucocorticoid biosynthesis ⑩ESR-mediated signaling ⑪FOXO-mediated transcription of oxidative stress, metabolic and neuronal genes ⑫VEGFA-VEGFR2 Pathway |
| Atractylodes macrocephala Koidz. (Baizhu, BZ) | Adjuvant herb | ①Fortifying the spleen ②Drying dampness and draining water ③Miscarriage prevention ④Replenishing qi | ①Diuretic effect②Hypoglycemia③Improving immune system function④Anticoagulant effect ⑤Dilateing blood vessels⑥Anti-cancer⑦Bacteriostasis⑧Promoting hematopoietic function⑨Protecting liver function  | ①GABA A receptor activation ②Nuclear Receptor transcription pathway ③SUMOylation of intracellular receptors ④Interleukin-1 processing ⑤Synthesis of bile acids and bile salts ⑥Interleukin-4 and Interleukin-13 signaling ⑦Transcriptional regulation of white adipocyte differentiation ⑧Activation of gene expression by SREBF (SREBP) ⑨Interleukin-10 signaling ⑩PPARA activates gene expression ⑪HSP90 chaperone cycle for steroid hormone receptors (SHR) |
| Poria cocos(Schw.)Wolf (Fuling, FL) | Adjuvant herb | ①Fortifying the spleen ②Drying dampness and draining water ③Calming the heart ④Replenishing qi | ①Diuretic effect②Bacteriostasis③Protecting liver function ④Anti-cancer⑤Improving immune system function⑥Sedative effect  | ①Nuclear Receptor transcription pathway ②GABA A receptor activation ③SUMOylation of intracellular receptors ④PPARA activates gene expression ⑤RORA activates gene expression ⑥Unblocking of NMDA receptors, glutamate binding and activation ⑦Negative regulation of NMDA receptor-mediated neuronal transmission ⑧Long-term potentiation ⑨Activation of gene expression by SREBF (SREBP) ⑩Synthesis of bile acids and bile salts ⑪Recycling of bile acids and salts |

**Table 2. (continued)**

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| --- | --- | --- | --- | --- |
| Herbs | Roles of Herbs | Therapeutic effects | Pharmacological actions | Corresponding pathways |
| Glycyrrhiza uralensis Fisch. (Gancao, GC) | Adjuvant herb | ①Fortifying the spleen ②Clearing heat ③Resolving phlegm and suppressing cough ④Relieving pain ⑤Moderating the property of herbs ⑥Replenishing qi ⑦Detoxicating | ①Anti-digestive system ulcer②Promoting gastric acid secretion③Protecting liver function④Promoting bile acid synthesis and secretion⑤Antiarrhythmic effect⑥Improving lipid metabolism⑦Antiatherogenic effect⑧Eliminating phlegm and antitussive effect ⑨Anti-inflammatory effect⑩Sedative effect⑪Improving immune system function⑫Detoxicating effect | ①Nuclear Receptor transcription pathway ②GABA A receptor activation ③SUMOylation of intracellular receptors ④TP53 Regulates Metabolic Genes ⑤Interleukin-4 and Interleukin-13 signaling ⑥Synthesis of bile acids and bile salts ⑦Transcriptional regulation of white adipocyte differentiation ⑧Synthesis of Prostaglandins (PG) and Thromboxanes (TX) ⑨Recycling of bile acids and salts ⑩HSP90 chaperone cycle for steroid hormone receptors (SHR) ⑪IkBA variant leads to EDA-ID ⑫PPARA activates gene expression ⑬Activation of gene expression by SREBF (SREBP) ⑭Glucocorticoid biosynthesis ⑮TRAF6 mediated NF-kB activation |
| Mentha haplocalyx Briq.（Bohe, BH) | Messenger herb | ①Soothing the liver ②Regulating qi stagnation ③Dispelling the wind pathogen ④Relieving sore throat ⑤Detoxicating ⑥Clearing heat | ①Anti-virus effect②Analgesic and antipruritic effect③Eliminating phlegm and antitussive effect④Bacteriostasis⑤Promoting bile acid synthesis and secretion⑥Protecting liver function | ①Amino acid synthesis and interconversion (transamination) ②Mitochondrial tRNA aminoacylation ③Unblocking of NMDA receptors, glutamate binding and activation ④TP53 Regulates Metabolic Genes ⑤Purine ribonucleoside monophosphate biosynthesis ⑥Activation of AMPA receptors ⑦Long-term potentiation ⑧Neurotransmitter receptors and postsynaptic signal transmission  |
| Zingiber officinale Rosc. (Shengjiang, SJ) | Messenger herb | ①Releasing the exterior and dissipating cold②Warming the middle and relieving vomitting ③Detoxicating ④Resolving phlegm and suppressing cough | ①Protecting stomach function and antiemetic effect②Hypertensive effect③Bacteriostasis④Antioxidation effect⑤Improving glucose and lipid metabolism⑥Anti-inflammatory effect⑦Anti-platelet aggregation effect⑧Antiatherogenic effect | ①GABA A receptor activation ②Nuclear Receptor transcription pathway ③SUMOylation of intracellular receptors ④TRP channels ⑤Adrenaline,noradrenaline inhibits insulin secretion ⑥Regulation of insulin secretion ⑦Synthesis of bile acids and bile salts ⑧Recycling of bile acids and salts ⑨Retinoid metabolism and transport  |