



Human MEGImmune Primer Library

Catalog No: HMEGIMM
Supplier: RealTimePrimers
Lot No: XXXXX
Supplied as: solid
Stability: stable at room temperature

Background

The MEGImmune 384-well primer library contains 374 primer sets that amplify immune cell-related genes as well as chemokine, cytokines, and their receptors along with 10 housekeeping genes. This enables one to establish a comprehensive immune signature from a tissue or from experiments in which an immune process altered.

Description

Contains 374 primer sets directed against immune-related genes and 10 housekeeping gene primer sets. Provided in a 384-well microplate (10 uM). Perform up to 100 PCR arrays (based on 10 ul assay volume per reaction). Just add cDNA template and SYBR green master mix.

Gene List:

- AMH Anti-Mullerian hormone
- ANGPT1 Angiotensin 1
- ANGPT2 Angiotensin 2
- ANGPT4 Angiotensin 4
- APOA2 Apolipoprotein A-II
- ATF2 activating transcription factor 2
- BCAR1 breast cancer anti-estrogen resistance 1
- BDNF Brain-derived neurotrophic factor
- BLNK B-cell linker
- BRAF B-Raf proto-oncogene, serine/threonine kinase
- BTK Bruton agammaglobulinemia tyrosine kinase
- BTLA B and T lymphocyte associated
- C5 complement component 5
- CCL1 chemokine (C-C motif) ligand 1
- CCL11 chemokine (C-C motif) ligand 11
- CCL12 chemokine (C-C motif) ligand 12
- CCL13 chemokine (C-C motif) ligand 13
- CCL15 Chemokine (C-C motif) ligand 14
- CCL16 Chemokine (C-C motif) ligand 16
- CCL17 chemokine (C-C motif) ligand 17
- CCL18 chemokine (C-C motif) ligand 18
- CCL19 chemokine (C-C motif) ligand 19
- CCL2 chemokine (C-C motif) ligand 2
- CCL20 Chemokine (C-C motif) ligand 20
- CCL21 chemokine (C-C motif) ligand 21
- CCL22 Chemokine (C-C motif) ligand 22
- CCL23 Chemokine (C-C motif) ligand 23
- CCL24 chemokine (C-C motif) ligand 24
- CCL26 Chemokine (C-C motif) ligand 26
- CCL27 Chemokine (C-C motif) ligand 27
- CCL28 chemokine (C-C motif) ligand 28
- CCL3 Chemokine (C-C motif) ligand 3
- CCL4 Chemokine (C-C motif) ligand 4
- CCL5 Chemokine (C-C motif) ligand 5
- CCL7 chemokine (C-C motif) ligand 7
- CCL8 Chemokine (C-C motif) ligand 8
- CCR1 Chemokine (C-C motif) receptor 1
- CCR10 chemokine (C-C motif) receptor 10
- CCR2 Chemokine (C-C motif) receptor 2
- CCR3 chemokine (C-C motif) receptor 3
- CCR4 Chemokine (C-C motif) receptor 4
- CCR5 chemokine (C-C motif) receptor 5
- CCR6 chemokine (C-C motif) receptor 6
- CCR7 chemokine (C-C motif) receptor 7
- CCR8 chemokine (C-C motif) receptor 8
- CCR9 chemokine (C-C motif) receptor 9
- CD14 CD14 molecule
- CD163 CD163 molecule
- CD19 CD19 molecule
- CD2 CD2 molecule
- CD22 CD22 molecule
- CD27 CD27 molecule
- CD274 CD274 molecule
- CD28 CD28 molecule
- CD3D CD3d molecule, delta (CD3-TCR complex)
- CD3E CD3e molecule, epsilon (CD3-TCR complex)
- CD3G CD3g molecule, gamma (CD3-TCR complex)
- CD4 CD4 molecule
- CD40 CD40 molecule, TNF receptor superfamily member 5
- CD40LG CD40 ligand
- CD47 CD47 molecule
- CD5 CD5 molecule
- CD68 CD68 molecule

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- CD7 CD7 molecule
- CD79A CD79a molecule, immunoglobulin-associated alpha
- CD79B CD79b molecule, immunoglobulin-associated beta
- CD80 CD80 molecule
- CD81 CD81 molecule
- CD86 CD86 molecule
- CD8A CD8a molecule
- CD8B CD8b molecule
- CDC42 cell division cycle 42
- CLC Cardiotrophin-like cytokine factor 1
- CNTF ciliary neurotrophic factor
- CR2 complement component (3d/Epstein Barr virus) receptor 2
- CSF1 colony stimulating factor 1
- CSF1R colony stimulating factor 1 receptor
- CSF2 Colony stimulating factor 2 (granulocyte-macrophage)
- CSF3 Colony stimulating factor 3 (granulocyte)
- CSR3P3 cysteine and glycine-rich protein 3 (cardiac LIM protein)
- CTF1 Cardiotrophin 1
- CTLA4 cytotoxic T-lymphocyte-associated protein 4
- CX3CL1 Chemokine (C-X3-C motif) ligand 1
- CX3CR1 chemokine (C-X3-C motif) receptor 1
- CXCL1 chemokine (C-X-C motif) ligand 1
- CXCL10 Chemokine (C-X-C motif) ligand 10
- CXCL11 chemokine (C-X-C motif) ligand 11
- CXCL12 Chemokine (C-X-C motif) ligand 12 (stromal cell-derived factor 1)
- CXCL13 chemokine (C-X-C motif) ligand 13
- CXCL14 Chemokine (C-X-C motif) ligand 14
- CXCL16 chemokine (C-X-C motif) ligand 16
- CXCL2 Chemokine (C-X-C motif) ligand 2
- CXCL3 Chemokine (C-X-C motif) ligand 3
- CXCL5 chemokine (C-X-C motif) ligand 5
- CXCL6 Chemokine (C-X-C motif) ligand 6 (granulocyte chemotactic protein 2)
- CXCL9 chemokine (C-X-C motif) ligand 9
- CXCR1 chemokine (C-X-C motif) receptor 1
- CXCR2 chemokine (C-X-C motif) receptor 2
- CXCR3 Chemokine (C-X-C motif) receptor 3
- CXCR4 chemokine (C-X-C motif) receptor 4
- CXCR5 Chemokine (C-X-C motif) receptor 5
- EDA Ectodysplasin A
- EGF Epidermal growth factor (beta-urogastrone)
- EGR2 early growth response 2
- EPO Erythropoietin
- ETS1 v-ets avian erythroblastosis virus E26 oncogene homolog 1
- FAS Fas (TNF receptor superfamily, member 6)
- FASLG Fas ligand (TNF superfamily, member 6)
- FLT3LG Fms-related tyrosine kinase 3 ligand
- FOXO1 forkhead box O1
- FOXP3 forkhead box P3
- FYN FYN proto-oncogene, Src family tyrosine kinase
- GAB2 GRB2-associated binding protein 2
- GAS6 Growth arrest-specific 6
- GDF10 Growth differentiation factor 10
- GDF11 Growth differentiation factor 11
- GDF15 Growth differentiation factor 15
- GDF3 Growth differentiation factor 3
- GDF5 Growth differentiation factor 5
- GDF7 Growth differentiation factor 7
- GDF8 Growth differentiation factor 8
- GDF9 Growth differentiation factor 9
- GDNF Glial cell derived neurotrophic factor
- GH1 Growth hormone 1
- GH2 Growth hormone 2
- GPI glucose-6-phosphate isomerase
- GRB2 growth factor receptor-bound protein 2
- GSK3A glycogen synthase kinase 3 alpha
- GSK3B glycogen synthase kinase 3 beta
- GTF2I general transcription factor Iii
- GZMB Granzyme B
- HAVCR2 hepatitis A virus cellular receptor 2
- HCLS1 hematopoietic cell-specific Lyn substrate 1
- HGF Hepatocyte growth factor (hepapoietin A; scatter factor)
- HIF1A hypoxia inducible factor 1, alpha subunit (basic helix-loop-helix transcription factor)
- HLA-A major histocompatibility complex, class I, A
- HLA-B major histocompatibility complex, class I, B
- HLA-C major histocompatibility complex, class I, C
- HLA-DQA1 major histocompatibility complex, class II, DQ alpha 1
- HLA-DQB1 major histocompatibility complex, class II, DQ beta 1
- HLA-DRA Major histocompatibility complex, class II, DR alpha
- HLA-DRA major histocompatibility complex, class II, DR alpha
- HLA-DRB1 major histocompatibility complex, class II, DR beta
- HLA-DRB3 major histocompatibility complex, class II, DR beta 3
- HLA-E major histocompatibility complex, class I, E
- HLA-G major histocompatibility complex, class I, G
- HMGB1 high mobility group box 1
- HRAS Harvey rat sarcoma viral oncogene homolog
- ICAM1 intercellular adhesion molecule 1
- ICOS inducible T-cell co-stimulator
- ICOSLG Inducible T-cell co-stimulator ligand
- IDO1 indoleamine 2,3-dioxygenase 1
- IFNA1 Interferon, alpha 1

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- IFNA14 Interferon, alpha 14
- IFNA2 interferon, alpha 2
- IFNA21 Interferon, alpha 21
- IFNA4 Interferon, alpha 4
- IFNA5 Interferon, alpha 5
- IFNA6 Interferon, alpha 6
- IFNA8 Interferon, alpha 8
- IFNB1 Interferon, beta 1, fibroblast
- IFNE1 Interferon epsilon 1
- IFNG interferon, gamma
- IFNGR1 Interferon gamma receptor 1
- IFNGR2 Interferon gamma receptor 2 (interferon gamma transducer 1)
- IFNK Interferon, kappa
- IFNW1 Interferon, omega 1
- IGBP1 Immunoglobulin (CD79A) binding protein 1
- IGF1 Insulin-like growth factor 1 (somatomedin C)
- IL10 Interleukin 10
- IL10RA interleukin 10 receptor, alpha
- IL10RB interleukin 10 receptor, beta
- IL11 Interleukin 11
- IL11RA interleukin 11 receptor, alpha
- IL11RB interleukin 11 receptor, beta
- IL12A interleukin 12A
- IL12B Interleukin 12B
- IL12RB1 Interleukin 12 receptor, beta 1
- IL12RB2 interleukin 12 receptor, beta 2
- IL13 Interleukin 13
- IL13RA1 interleukin 13 receptor, alpha 1
- IL13RA2 interleukin 13 receptor, alpha 2
- IL15 Interleukin 15
- IL15RA interleukin 15 receptor, alpha
- IL15RB interleukin 15 receptor, beta
- IL16 interleukin 16
- IL17A interleukin 17A
- IL17B Interleukin 17B
- IL17C Interleukin 17C
- IL17D Interleukin 17D
- IL17E Interleukin 17E
- IL17F interleukin 17F
- IL17F Interleukin 17F
- IL17RA interleukin 17 receptor A
- IL17RB interleukin 17 receptor B
- IL17RC interleukin 17 receptor C
- IL17RD interleukin 17 receptor D
- IL17RE interleukin 17 receptor E
- IL18 interleukin 18
- IL18R1 Interleukin 18 receptor 1
- IL18RAP interleukin 18 receptor accessory protein
- IL19 Interleukin 19
- IL1A interleukin 1, alpha
- IL1B Interleukin 1, beta
- IL1F10 Interleukin 1 family, member 10 (theta)
- IL1F5 Interleukin 1 family, member 5 (delta)
- IL1F6 Interleukin 1 family, member 6 (epsilon)
- IL1F7 Interleukin 1 family, member 7 (zeta)
- IL1F8 Interleukin 1 family, member 8 (eta)
- IL1F9 Interleukin 1 family, member 9
- IL1R1 interleukin 1 receptor, type I
- IL1R2 interleukin 1 receptor, type II
- IL1RAP interleukin 1 receptor accessory protein
- IL1RAPL1 interleukin 1 receptor accessory protein-like 1
- IL1RAPL2 interleukin 1 receptor accessory protein-like 2
- IL1RL1 interleukin 1 receptor-like 1
- IL1RL2 interleukin 1 receptor-like 2
- IL1RN interleukin 1 receptor antagonist
- IL2 Interleukin 2
- IL2 Interleukin 2
- IL20 Interleukin 20
- IL20RA interleukin 20 receptor, alpha
- IL20RB interleukin 20 receptor beta
- IL21 interleukin 21
- IL21R interleukin 21 receptor
- IL22 interleukin 22
- IL22RA1 interleukin 22 receptor, alpha 1
- IL22RA2 interleukin 22 receptor, alpha 2
- IL23A interleukin 23, alpha subunit p19
- IL24 interleukin 24
- IL26 Interleukin 26
- IL27 interleukin 27
- IL27RA interleukin 27 receptor, alpha
- IL28A Interleukin 28A (interferon, lambda 2)
- IL28RA interleukin 28 receptor, alpha
- IL29 Interleukin 29 (interferon, lambda 1)
- IL2RA interleukin 2 receptor, alpha
- IL2RB interleukin 2 receptor, beta
- IL2RG interleukin 2 receptor, gamma
- IL3 interleukin 3
- IL31RA interleukin 31 receptor, alpha
- IL3RA interleukin 3 receptor, alpha
- IL4 Interleukin 4
- IL4R interleukin 4 receptor
- IL5 interleukin 5
- IL5RA interleukin 5 receptor, alpha
- IL6 interleukin 6
- IL6R interleukin 6 receptor
- IL6ST interleukin 6 signal transducer
- IL7 interleukin 7
- IL7R interleukin 7 receptor
- IL8 interleukin 8
- IL9 interleukin 9
- IL9R interleukin 9 receptor
- ILF2 interleukin enhancer binding factor 2
- INHA Inhibin, alpha
- INHBA Inhibin, beta A
- INHBB Inhibin, beta B

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- INHBC Inhibin, beta C
- INHBE Inhibin, beta E
- IRF4 Interferon regulatory factor 4
- ISG15 ISG15 ubiquitin-like modifier
- JAK3 Janus kinase 3
- JUN jun proto-oncogene
- KIF13B Kinesin family member 13B
- KITLG KIT ligand
- KLF6 Kruppel-like factor 6
- LEFTY1 Left-right determination factor 1
- LEFTY2 Left-right determination factor 2
- LEP Leptin (obesity homolog, mouse)
- LIF leukemia inhibitory factor
- LTA lymphotoxin alpha
- LTB lymphotoxin beta
- LTBR lymphotoxin beta receptor (TNFR superfamily, member 3)
- MAX MYC associated factor X
- MIF macrophage migration inhibitory factor
- MS4A1 membrane-spanning 4-domains, subfamily A, member 1
- MSTN myostatin
- MYC v-myc avian myelocytomatosis viral oncogene homolog
- NCK1 NCK adaptor protein 1
- NCK2 NCK adaptor protein 2
- NFATC1 nuclear factor of activated T-cells 1
- NFATC2 nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2
- NFATC3 nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 3
- NFKB1 nuclear factor of kappa light polypeptide gene enhancer in B-cells 1
- NFKBIA nuclear factor of kappa light polypeptide gene enhancer in B-cells inhibitor, alpha
- NGFB Nerve growth factor, beta polypeptide
- NGFR nerve growth factor receptor (TNFR superfamily, member 16)
- NLRC5 NLR family, CARD domain containing 5
- NODAL nodal homolog (mouse)
- NOS2 nitric oxide synthase 2, inducible
- NT5E 5'-nucleotidase, ecto (CD73)
- NTF3 Neurotrophin 3
- NTF5 Neurotrophin 5 (neurotrophin 4/5)
- OSM oncostatin M
- PDCD1LG2 programmed cell death 1 ligand 2
- PDGFC Platelet derived growth factor C
- PDGFD DNA-damage inducible protein 1
- PF4 Platelet factor 4 (chemokine (C-X-C motif) ligand 4)
- PIK3AP1 phosphoinositide-3-kinase adaptor protein 1
- PIK3R1 phosphoinositide-3-kinase, regulatory subunit 1 (alpha)
- PIP5K1A phosphatidylinositol-4-phosphate 5-kinase, type I, alpha
- PIP5K1B phosphatidylinositol-4-phosphate 5-kinase, type I, beta
- PIP5K1C phosphatidylinositol-4-phosphate 5-kinase, type I, gamma
- PLCG1 phospholipase C, gamma 1
- PLCG2 phospholipase C, gamma 2 (phosphatidylinositol-specific)
- PPBP pro-platelet basic protein (chemokine (C-X-C motif) ligand 7)
- PRL Prolactin
- PRLR Prolactin receptor
- PSMB9 proteasome (prosome, macropain) subunit, beta type, 9
- PTGS2 prostaglandin-endoperoxide synthase 2 (prostaglandin G/H synthase and cyclooxygenase)
- PTPN11 protein tyrosine phosphatase, non-receptor type 11
- PTPN18 protein tyrosine phosphatase, non-receptor type 18 (brain-derived)
- PTPN6 protein tyrosine phosphatase, non-receptor type 6
- PTPRC protein tyrosine phosphatase, receptor type C
- PVRL1 Poliovirus receptor-related 1 (herpesvirus entry mediator C)
- RGS1 Regulator of G-protein signaling 1
- STAT1 signal transducer and activator of transcription 1, 91kDa
- STAT3 signal transducer and activator of transcription 3
- TEC tec protein tyrosine kinase
- TGFB1 transforming growth factor, beta 1
- TGFB2 Transforming growth factor, beta 2
- TGFB3 Transforming growth factor, beta 3
- THPO thrombopoietin
- TIGIT T cell immunoreceptor with Ig and ITIM domains
- TLR1 Toll-like receptor 1
- TLR2 Toll-like receptor 2
- TLR4 Toll-like receptor 4
- TLR4 toll-like receptor 4
- TLR6 Toll-like receptor 6
- TLR9 Toll-like receptor 9
- TNF tumor necrosis factor
- TNFRSF10A tumor necrosis factor receptor superfamily, member 10a
- TNFRSF10B tumor necrosis factor receptor superfamily, member 10b
- TNFRSF10C tumor necrosis factor receptor superfamily, member 10c
- TNFRSF10D tumor necrosis factor receptor superfamily, member 10d

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- TNFRSF11A tumor necrosis factor receptor superfamily, member 11a
- TNFRSF11B tumor necrosis factor receptor superfamily, member 11b
- TNFRSF12A tumor necrosis factor receptor superfamily, member 12A
- TNFRSF13B tumor necrosis factor receptor superfamily, member 13B
- TNFRSF13C tumor necrosis factor receptor superfamily, member 13C
- TNFRSF14 tumor necrosis factor receptor superfamily, member 14
- TNFRSF17 tumor necrosis factor receptor superfamily, member 17
- TNFRSF18 tumor necrosis factor receptor superfamily, member 18
- TNFRSF19 tumor necrosis factor receptor superfamily, member 19
- TNFRSF1A tumor necrosis factor receptor superfamily, member 1A
- TNFRSF1B tumor necrosis factor receptor superfamily, member 1B
- TNFRSF21 tumor necrosis factor receptor superfamily, member 21
- TNFRSF25 tumor necrosis factor receptor superfamily, member 25
- TNFRSF4 tumor necrosis factor receptor superfamily, member 4
- TNFRSF6B tumor necrosis factor receptor superfamily, member 6b, decoy
- TNFRSF7 tumor necrosis factor receptor superfamily, member 7
- TNFRSF8 tumor necrosis factor receptor superfamily, member 8
- TNFRSF9 tumor necrosis factor receptor superfamily, member 9
- TNFSF10 tumor necrosis factor (ligand) superfamily, member 10
- TNFSF11 Tumor necrosis factor (ligand) superfamily, member 11
- TNFSF13 Tumor necrosis factor (ligand) superfamily, member 12
- TNFSF13B tumor necrosis factor (ligand) superfamily, member 13b
- TNFSF14 Tumor necrosis factor (ligand) superfamily, member 14
- TNFSF15 Tumor necrosis factor (ligand) superfamily, member 15
- TNFSF18 Tumor necrosis factor (ligand) superfamily, member 18
- TNFSF4 Tumor necrosis factor (ligand) superfamily, member 4
- TNFSF7 CD70 molecule
- TNFSF8 Tumor necrosis factor (ligand) superfamily, member 8
- TNFSF9 Tumor necrosis factor (ligand) superfamily, member 9
- TPO Thyroid peroxidase
- TSLP Thymic stromal lymphopoietin
- VEGFA vascular endothelial growth factor A
- VEGFB Vascular endothelial growth factor B
- VEGFC Vascular endothelial growth factor C
- XCL1 chemokine (C motif) ligand 1
- XCL2 Chemokine (C motif) ligand 2
- XCR1 chemokine (C motif) receptor 1
- ZFP91 Zinc finger protein 91 homolog (mouse)
- ACTB Actin, beta
- B2M Beta-2-microglobulin
- GAPD Glyceraldehyde-3-phosphate dehydrogenase
- GUSB Glucuronidase, beta
- HPRT1 Hypoxanthine phosphoribosyltransferase 1
- PGK Phosphoglycerate kinase 1
- PPIA Peptidylprolyl isomerase A
- RPL13A Ribosomal protein L13a
- TBP TATA-Box Binding Protein
- TFRC Transferrin Receptor

Usage

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