

IB4+		IB4-	
gene	Function	gene	Function
AEBP1	Adipocyte enhancer-binding protein 1; wound healing, abdominal wall development, pro-inflammatory mediator	Slamf1	Signalling Lymphocytic Activation Molecule Family Member 1; signalling between immune cells, regulation of immune response
Thbs2	Thrombospondin 2; modulation of cell adhesion and motility	Rasgrp3	RAS Guanyl Releasing Protein 3; activates small GTPases including Ras and Rap1, dysregulation linked to rheumatoid arthritis
Kcnn4	Potassium Calcium-Activated Channel Subfamily N Member 4; Ca ²⁺ transport, cell volume control, macrophage multinucleation, linked to sickle-cell and inflammatory disease	Serpinb5	Serpin Family B Member 5; tumour suppressor
Ndp	Norrin cystine knot growth factor; activates Wnt signalling pathway	Dnase113	Deoxyribonuclease I Like 3; hydrolyses DNA and mediates the breakdown of DNA during apoptosis
Ctla2a	Protein CTLA-2-alpha; expressed in cytotoxic T lymphocytes, immunological response	Ggta1	α1,3-galactosyltransferase; involved in protein glycosylation at cell surface
Gm17383	tubulin, alpha 1B pseudogene	Stom	Stomatin; regulates ion channels and transporters, including ASIC2 and ASIC3 channel activity
Gm4518	glyceraldehyde-3-phosphate dehydrogenase pseudogene	Serping1	Serpin Family G Member 1; inhibitor of the complement system; role in blood coagulation & generation of kinins
Lppr1	Lipid phosphate phosphatase-related protein type 1; neuronal plasticity, phospholipid metabolic processes	Vamp8	Vesicle-associated membrane protein 8; fusion of cellular membranes, autophagy, regulation of endo- and exocytosis
PENK	Preproenkephalin; precursor of Met- and Leu-enkephalin involved in modulating pain perception, suggested anti-inflammatory role	Pde10a	Phosphodiesterase 10A; regulates the intracellular concentration of cyclic nucleotides
Cyp4f39	Cytochrome P450, family 4, subfamily f, polypeptide 39; monooxygenase activity, iron ion binding, metal ion binding, oxidoreductase activity	Mal2	MAL Protein 2; function in transcytosis
Efnb1	Ephrin-B; cell-to-cell signalling, axon guidance, cell adhesion, upregulation in rheumatoid arthritis	Zbtb20	Zinc finger and BTB domain-containing protein 20; transcription factor, regulates TRPV1, TRPA1, TRPM8 expression
Abtb2	Ankyrin repeat and BTB domain containing 2; regulation of protein proteolysis and ubiquitination,	Amotl1	Angiotensin-like protein 1; component of tight junctions, involved in maintaining cell polarity
Sytl2	Synaptotagmin like 2; RAB27A-dependent vesicle trafficking and secretion, required for mitochondrial fusion following cellular stress	Scn9a	Sodium Voltage-Gated Channel Alpha Subunit 9; crucial modulator of nociceptor excitability, mutations linked to congenital insensitivity to pain and primary inherited erythromelalgia
Lingo1	Leucine Rich Repeat And Ig Domain Containing 1; negative regulation of myelination by oligodendrocytes		
Rhof	Ras Homolog Family Member F (In Filopodia); actin filament organisation, formation of filopodia		
Pcsk1	Proprotein Convertase Subtilisin/Kexin Type 1; proteolytic activation of polypeptide hormones and neuropeptides precursors, including enkephalin and somatostatin; deficiency linked to obesity		
Atp2b4	ATPase Plasma Membrane Ca ²⁺ Transporting 4; Ca ²⁺ ATPase, intracellular Ca ²⁺ homeostasis		
Kcnk3	Potassium Two Pore Domain Channel Subfamily K Member 3; acid-sensitive background K ⁺ channel, activated by isoflurane and halothane		
Npy1r	Neuropeptide Y receptor type 1; mediates function of neuropeptide Y and peptide YY; regulation of inflammation and pain behaviours		