

## Supplementary table 7: SLE Type 1/2 MEGENA module preservation in GSE67311 FM

mod.name	mod.annot	Zsummary.pres	moduleSize
7.49	oxidative.phosphorylation, respiratory.chain	28.63	161
10.159	adaptive.immune.response, MHC.protein.binding	22.33	105
6.36	Platelet. blood.coagulation	22.19	155
7.48	Plasma-Cell. carbohydrate.derivative.biosynthetic.process	16.09	29
7.49.271	Nk-cell. axon.guidance	15.33	46
6.36.230	Neutrophil. cell.activation.involved.in.immune.response	15.24	78
8.72	cytokine.receptor.activity, cytokine.binding	14.63	27
5.23	histone.demethylase.activity, histone.demethylation	14.26	34
10.159.374	T.cell. reg.of.neuron.death	13.74	47
6.36.230.438	Monocyte. interleukin-1.receptor.activity	13.19	42
5.22	Mono.Secreted. synapse.pruning	12.06	59
7.49.273	B.cells. B.cell.activation	11.97	33
5.23.222	B.cells. transcription.regulator.activity	11.47	26
7.49.275	protein-DNA.complex, nucleosome	11.39	23
10.159.372	Monocyte. response.to.virus	11.06	35
6.39	cerebral.cortex.radial.glia.guided.migration, telencephalon.glia.cell.migration	10.84	62
7.48.268	protein.kinase.regulator.activity, kinase.regulator.activity	10.83	21
10.159.372.523	IFN. response.to.stress	10.79	24
3.15	cation.transmembrane.transporter.activity, carnitine.shuttle	10.49	138
7.49.272	blastocyst.development, organelle.localization.by.membrane.tethering	10.34	17
10.159.374.527	Cell.Cycle. cell.cycle	10.18	35
8.51	dendrite.pos.reg.of.synaptic.transmission	9.87	58
6.40.252	Myeloid-Cell. divalent.metal.ion.transport	9.71	11
6.39.248	cofactor.catabolic.process, hydrogen.peroxide.catabolic.process	9.06	27
8.60	Erythrocyte. erythrocyte.diff	9	20
3.17	neutrophil.chemotaxis, neutrophil.migration	8.95	17
8.58	meiotic.gene.conversion, gene.conversion	8.78	23
8.53	leukocyte.degranulation, Fc.receptor.signaling.pathway	8.31	25
5.22.217	superoxide-generating, NADPH.oxidase.activity, NADPH.oxidase.complex	7.99	15
8.72.305	transcription.factor.complex, cation.channel.activity	7.97	20
8.67	extracellular.exosome, extracellular.vesicle	7.92	51
6.36.230.439	NK-or-T-cell. collagen.metabolic.process	7.77	17
8.67.299	dephosphorylation, immunoglobulin.production.involved.in.immunoglobulin.mediated.i	7.16	41
6.36.231	pattern.recognition.receptor.signaling.pathway, specific.granule	6.78	13
3.15.175	neutrophil.degranulation, neutrophil.activation.involved.in.immune.response	6.74	55
6.39.247	response.to.growth.factor, cellular.anion.homeostasis	6.61	21
8.53.286	proteasome.regulatory.particle, proteasome.regulatory.particle, lid.subcomplex	6.61	12
5.22.218	NK-or-T-cell. extrinsic.component.of.cytoplasmic.side.of.plasma.membrane	6.53	22
5.23.222.430	phospholipid.transporter.activity, phospholipid.transport	6.39	14
3.19	reg.of.apoptotic.signaling.pathway, pos.reg.of.apoptotic.signaling.pathway	6.18	50
8.60.295	anterior/posterior.pattern.specification, corticotropin.hormone.secreting.cell.diff	6.11	14
6.40	protein.depalmitylation, N,-dimethylaniline.monooxygenase.activity	6.05	19
2.11	leukotriene.catabolic.process, leukotriene.B4.catabolic.process	6	51
6.36.234	cerebral.cortex.cell.migration, telencephalon.cell.migration	5.92	14
7.49.271.471	RNA.binding, ribonucleoprotein.complex	5.9	14
6.35.229	endopeptidase.activity, peptidase.activity, acting.on.L-amino.acid.peptides	5.75	10
8.68	receptor.complex, growth.factor.binding	5.45	18
6.39.248.453	microtubule.cytoskeleton, sulfur.amino.acid.metabolic.process	5.16	13
8.80	spindle, C-5.sterol.desaturase.activity	5.1	17
8.53.285	glucagon.receptor.activity, melatonin.receptor.activity	5	10
6.45	reg.of.axon.extension, axon.extension	4.86	27
6.35	catalytic.activity, acting.on.DNA, DNA.translocase.activity	4.8	35
8.51.281	reg.of.gene.expression, protein.localization.to.endoplasmic.reticulum	4.66	15
3.15.180	spliceosomal.tri-snRNP.complex.assembly, formation.of.quadruple.SL/U4/U5/U6.snRNP	4.58	16
2.11.161	oxidative.phosphorylation, respiratory.chain	4.53	17
6.41	animal.organ.morphogenesis, reg.of.Wnt.signaling.pathway	4.48	13
8.51.280	Platelet. wound.healing	4.34	17
3.15.175.386	neg.reg.of.growth, fertilization	4.19	21
6.39.247.448	system.process, protein.heterodimerization.activity	4.09	10
3.20	olfactory.receptor.activity, detection.of.chemical.stimulus.involved.in.sensory.perceptor	3.95	16
7.48.268.468	Plasma-Cell. organic.substance.metabolic.process	3.93	6
10.158	Plasma-Cell. response.to.unfolded.protein	3.91	20
8.58.291	Neutrophil. cell.activation.involved.in.immune.response	3.89	12
8.56	G.protein-coupled.receptor.signaling.pathway, coupled.to.cyclic.nucleotide.second.mess	3.73	11
3.18	odontogenesis, trans-Golgi.network	3.57	28
8.55	response.to.nitrogen.compound, reg.of.hormone.secretion	3.54	13
2.11.162	deaminating.activity, primary.amine.oxidase.activity	3.54	11
3.20.216	calcium.ion.binding, pos.reg.of.wound.healing	3.43	11
10.158.371	virus.receptor.activity, hijacked.molecular.function	3.36	8
2.13	postsynaptic.endosome, galactoside.binding	3.31	10
8.67.299.497	cell.diff, polymeric.cytoskeletal.fiber	3.16	16

6.36.230.438.556	GTPase.regulator.activity,interleukin-18-mediated.signaling.pathway	3.1	10
8.66	small.molecule.biosynthetic.process,cellular.response.to.steroid.hormone.stimulus	3.04	10
5.22.218.427	interleukin-1.receptor.activity,interleukin-1-mediated.signaling.pathway	2.94	10
7.49.271.472	cell.fate.specification,heart.looping	2.91	6
9.100	pos.reg.of.antimicrobial.peptide.production,reg.of.antimicrobial.humoral.response	2.81	21
8.69	muscle.structure.development,muscle.organ.development	2.74	15
6.42	B-Cell.immune.response-activating.cell.surface.receptor.signaling.pathway	2.72	19
8.76	B.cells.cytokinesis	2.66	14
3.19.211	B.cells.extracellular.matrix.organization	2.51	10
8.81	protein-DNA.complex,chromatin	2.41	11
6.36.230.438.557	nervous.system.development,RAGE.receptor.binding	2.39	12
8.71	Monocyte.response.to.virus	2.24	11
6.37.239	IFN.protein.homodimerization.activity	2.23	11
6.35.228	extracellular.region,vesicle	2.13	24
8.55.289	transferase.activity,transferring.hexosyl.groups,protein.glycosylation	2.12	7
3.18.209	plasma.membrane.part,extrinsic.component.of.plasma.membrane	2.1	13
6.36.236	Rho.GTPase.binding,Rac.GTPase.binding	2.08	9
3.19.210	neurotransmitter.metabolic.process,reg.of.Wnt.signaling.pathway	2.07	12
6.35.229.437	pos.reg.of.viral.life.cycle,pos.reg.of.viral.process	2.01	3