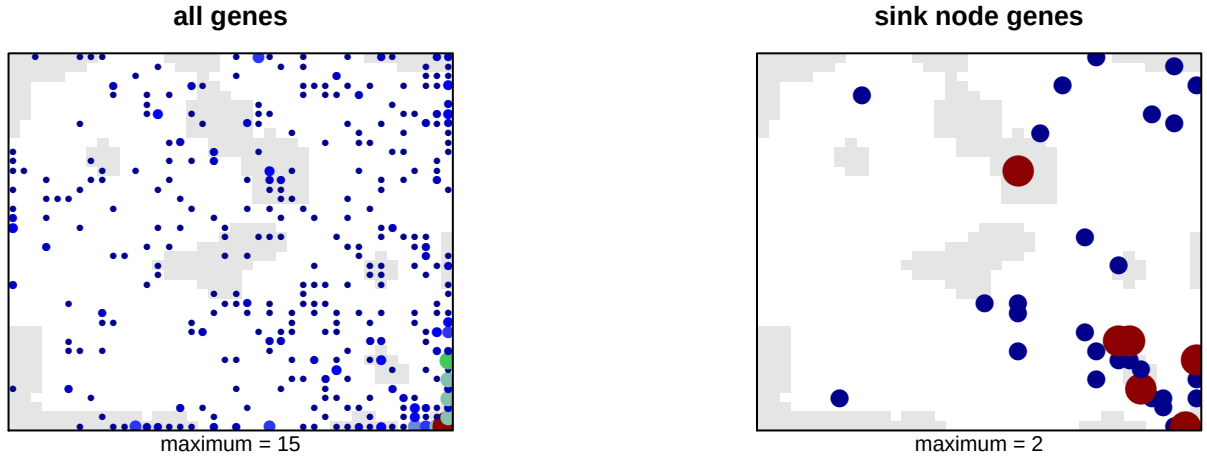
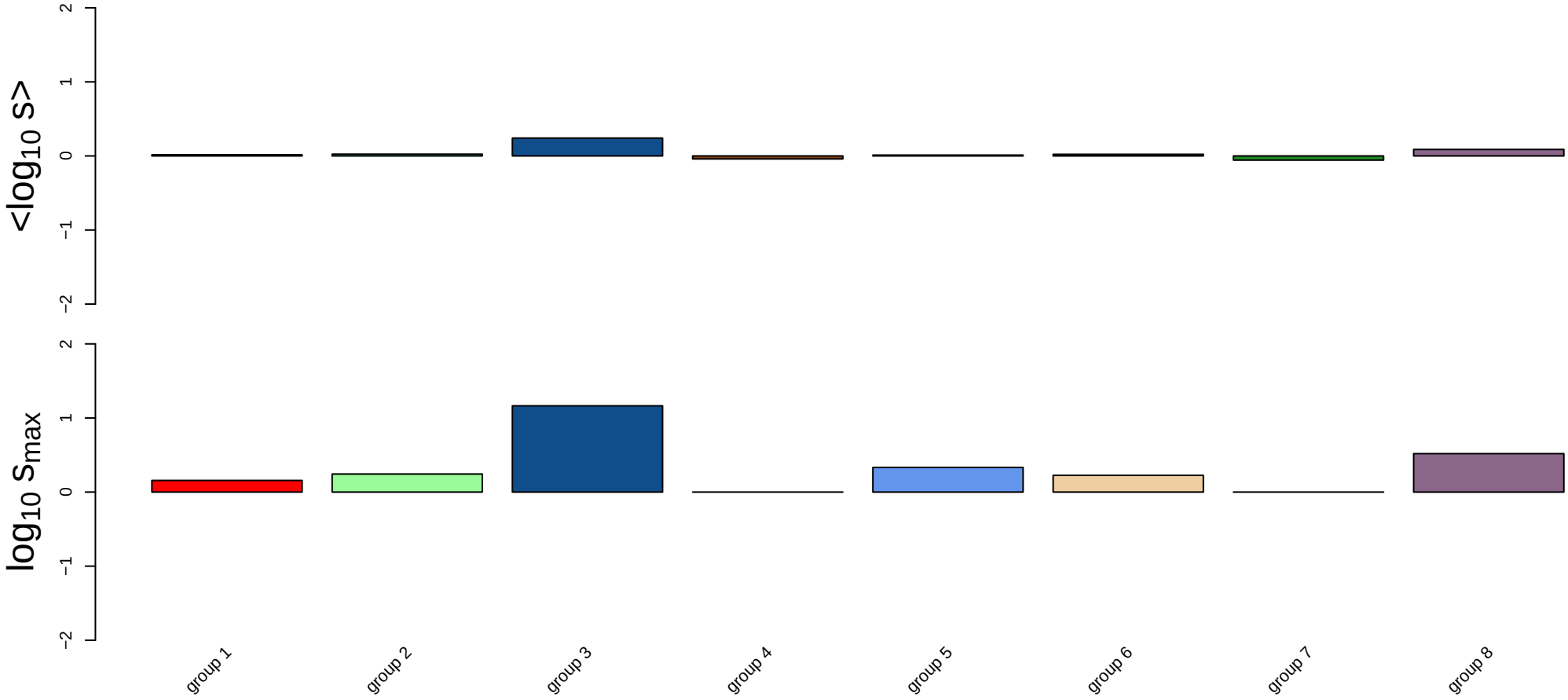
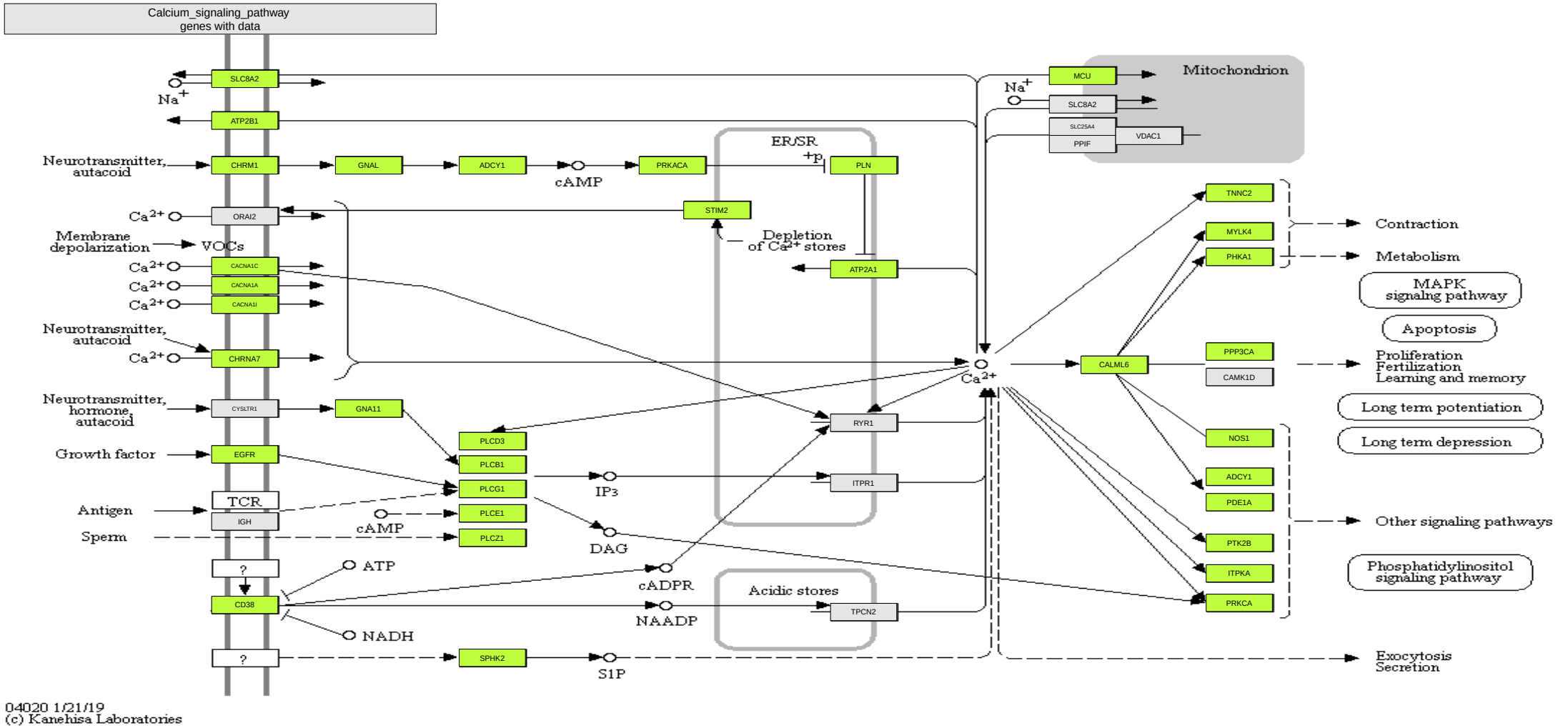
Calcium signaling pathway






Calcium_signaling_pathway
genes with data
SLC8A2
Na+
ATP2B1
Neurotransmitter, autacoid
CHRM1
GNAL
ADCY1
cAMP
PRKACA
ER/SR
+p
PLN
Ca2+
ORAI2
STIM2
Depletion of Ca2+ stores
Membrane depolarization
VOCs
CACNA1C
CACNA1A
CACNA1I
ATP2A1
CHRNA7
CYSLTR1
GNA11
PLCD3
PLCB1
PLCG1
PLCE1
PLCZ1
RYR1
ITPR1
IP3
DAG
Growth factor
EGFR
Antigen
TCR
IGH
Sperm
cAMP
ATP
cADPR
NADH
NAADP
CD38
?
Acidic stores
TPCN2
SPHK2
S1P
Mitochondrion
MCU
SLC8A2
SLC25A4
PPIF
VDAC1
CALML6
TNNC2
MYLK4
PHKA1
PPP3CA
CAMK1D
NOS1
ADCY1
PDE1A
PTK2B
ITPKA
PRKCA
Contraction
Metabolism
MAPK signalng pathway
Apoptosis
Proliferation
Fertilization
Learning and memory
Long term potentiation
Long term depression
Other signaling pathways
Phosphatidylinositol signaling pathway
Exocytosis
Secretion
04020 1/21/19
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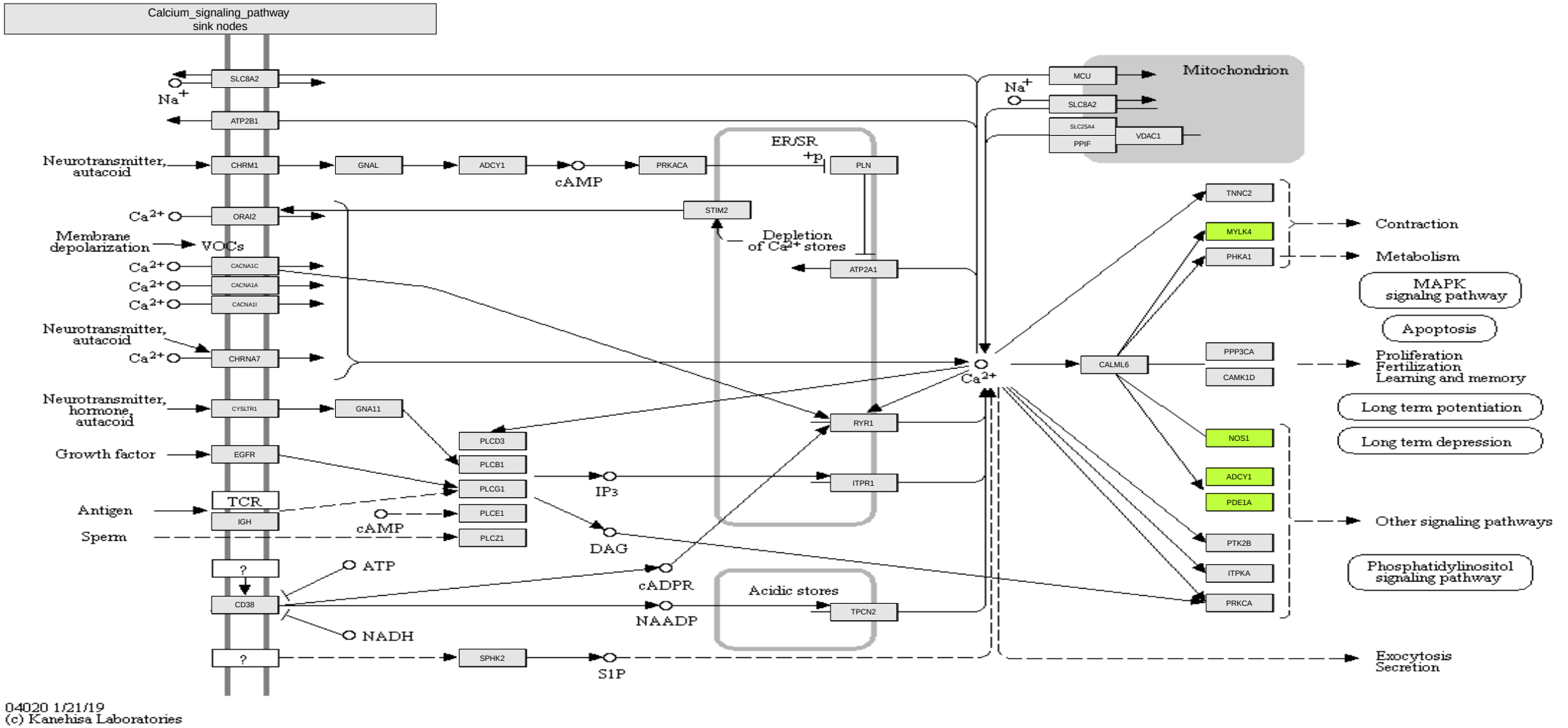
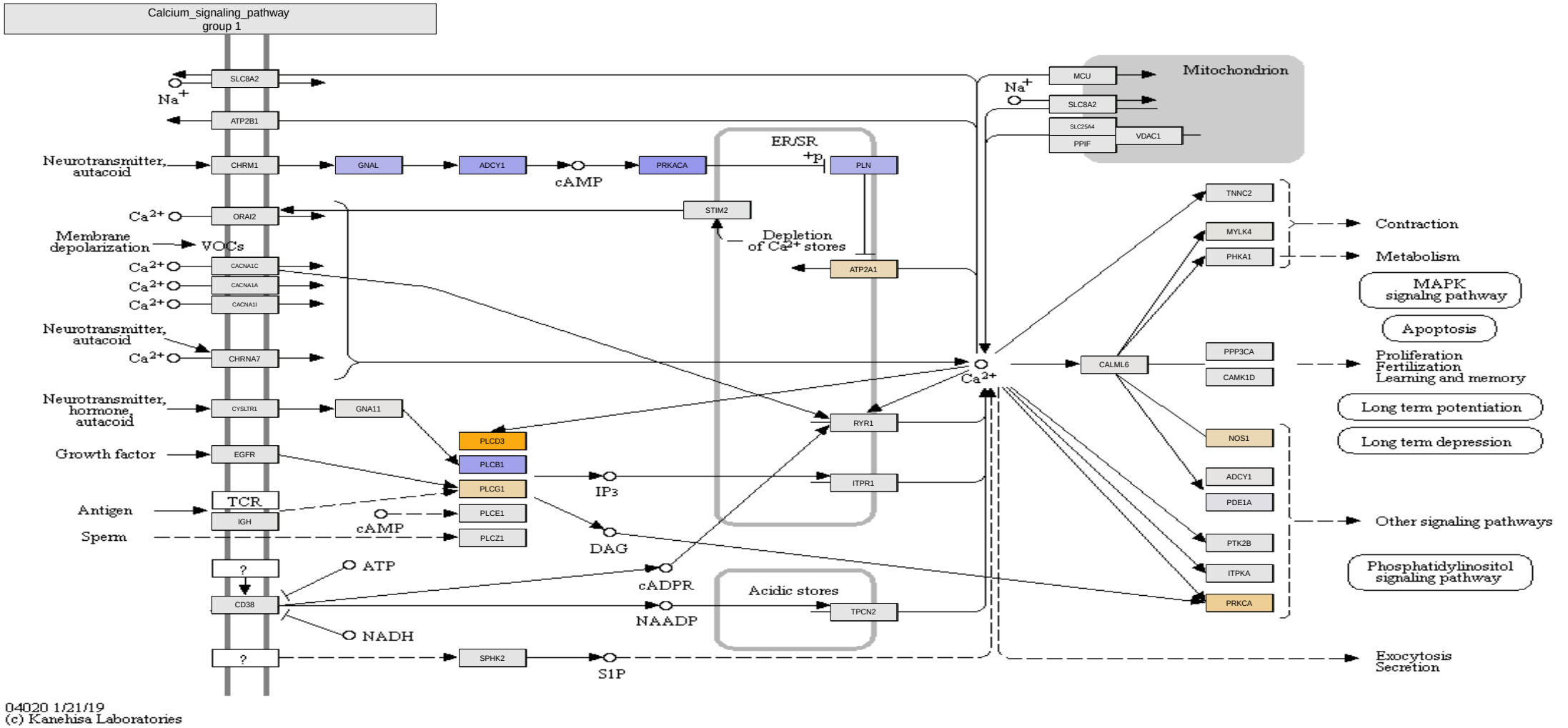

Calcium_signaling_pathway
sink nodes
SLC8A2
Na+
ATP2B1
Neurotransmitter, autacoid
CHRM1
GNAL
ADCY1
cAMP
PRKACA
ER/SR
+p
PLN
Ca2+
ORAI2
STIM2
Depletion of Ca2+ stores
Membrane depolarization
VOCs
CACNA1C
CACNA1A
CACNA1I
ATP2A1
Neurotransmitter, autacoid
CHRNA7
Neurotransmitter, hormone, autacoid
CYSLTR1
GNA11
Growth factor
EGFR
TCR
Antigen
IGH
Sperm
PLCD3
PLCB1
PLCG1
PLCE1
PLCZ1
IP3
DAG
cAMP
RYR1
ITPR1
?
ATP
CD38
NADH
cADPR
NAADP
Acidic stores
TPCN2
?
SPHK2
S1P
Mitochondrion
MCU
Na+
SLC8A2
SLC25A4
PPIF
VDAC1
Ca2+
CALML6
TNNC2
MYLK4
PHKA1
Contraction
Metabolism
MAPK signalng pathway
Apoptosis
PPP3CA
CAMK1D
Proliferation
Fertilization
Learning and memory
Long term potentiation
Long term depression
NOS1
ADCY1
PDE1A
PTK2B
ITPKA
PRKCA
Other signaling pathways
Phosphatidylinositol signaling pathway
Exocytosis
Secretion
04020 1/21/19
(c) Kanehisa Laboratories


Calcium_signaling_pathway
group 1
SLC8A2
Na+
ATP2B1
Neurotransmitter, autacoid
CHRM1
GNAL
ADCY1
cAMP
PRKACA
ER/SR
+p
PLN
Ca2+
ORAI2
STIM2
Depletion of Ca2+ stores
Membrane depolarization
VOCs
CACNA1C
CACNA1A
CACNA1I
ATP2A1
Neurotransmitter, autacoid
CHRNA7
Neurotransmitter, hormone, autacoid
CYSLTR1
GNA11
Growth factor
EGFR
PLCD3
PLCB1
PLCG1
PLCE1
PLCZ1
IP3
DAG
RYR1
ITPR1
Antigen
TCR
IGH
Sperm
cAMP
?
ATP
CD38
NADH
cADPR
NAADP
Acidic stores
TPCN2
?
SPHK2
S1P
Mitochondrion
MCU
Na+
SLC8A2
SLC25A4
PPIF
VDAC1
Ca2+
CALML6
TNNC2
MYLK4
PHKA1
Contraction
Metabolism
MAPK signalng pathway
Apoptosis
PPP3CA
CAMK1D
Proliferation
Fertilization
Learning and memory
Long term potentiation
Long term depression
NOS1
ADCY1
PDE1A
PTK2B
ITPKA
PRKCA
Other signaling pathways
Phosphatidylinositol signaling pathway
Exocytosis
Secretion
04020 1/21/19
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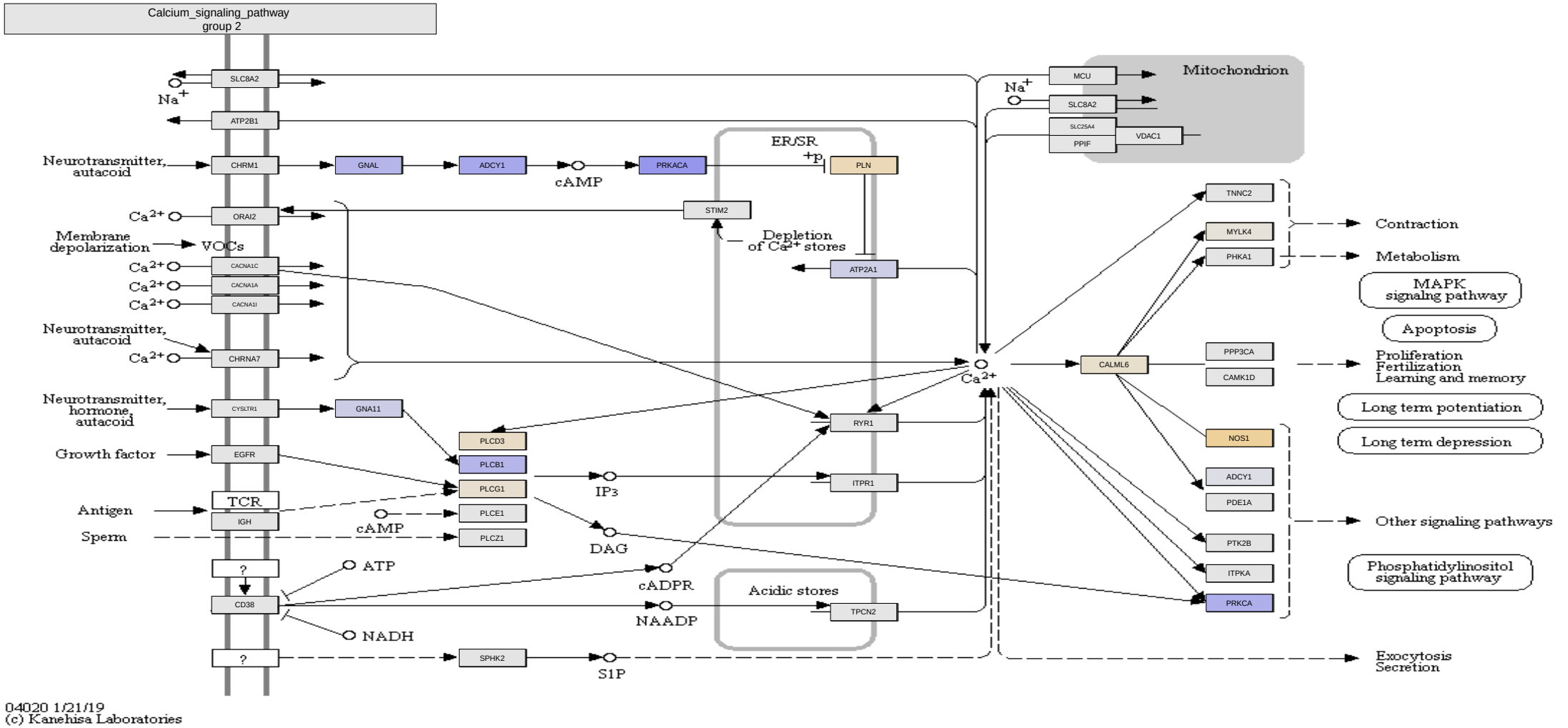
Calcium_signaling_pathway
group 2
SLC8A2
Na+
ATP2B1
Neurotransmitter, autacoid
CHRM1
GNAL
ADCY1
cAMP
PRKACA
ER/SR
+p
PLN
Ca2+
ORAI2
STIM2
Depletion of Ca2+ stores
Membrane depolarization
VOCs
CACNA1C
CACNA1A
CACNA1I
ATP2A1
Neurotransmitter, autacoid
CHRNA7
Ca2+
Neurotransmitter, hormone, autacoid
CYSLTR1
GNA11
RYR1
PLCD3
Growth factor
EGFR
PLCB1
PLCG1
IP3
ITPR1
TCR
Antigen
IGH
PLCE1
cAMP
Sperm
PLCZ1
DAG
?
ATP
cADPR
CD38
NAADP
Acidic stores
TPCN2
NADH
?
SPHK2
S1P
Mitochondrion
MCU
Na+
SLC8A2
SLC25A4
PPIF
VDAC1
CALML6
TNNC2
MYLK4
PHKA1
Contraction
Metabolism
MAPK signalng pathway
Apoptosis
PPP3CA
CAMK1D
Proliferation
Fertilization
Learning and memory
Long term potentiation
Long term depression
NOS1
ADCY1
PDE1A
PTK2B
ITPKA
PRKCA
Other signaling pathways
Phosphatidylinositol signaling pathway
Exocytosis
Secretion
04020 1/21/19
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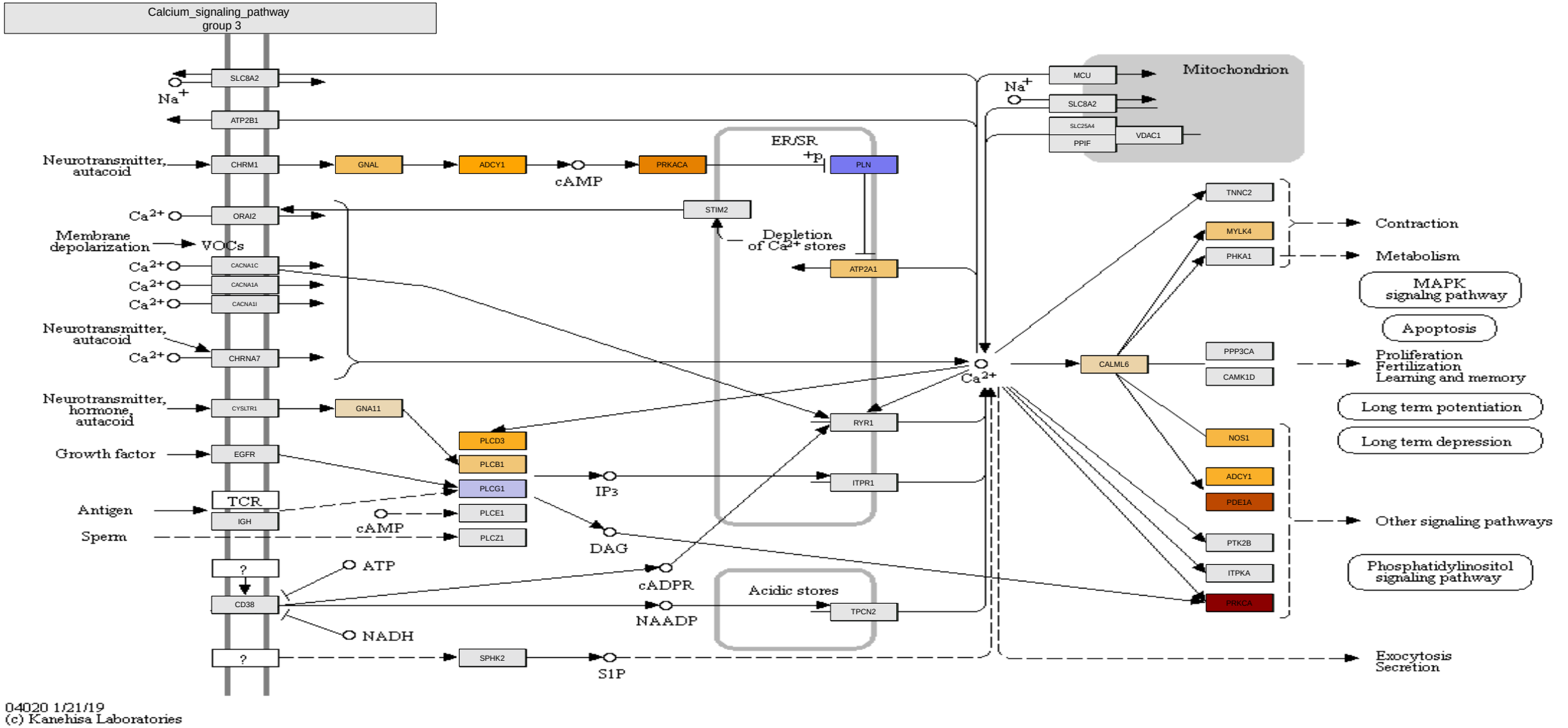
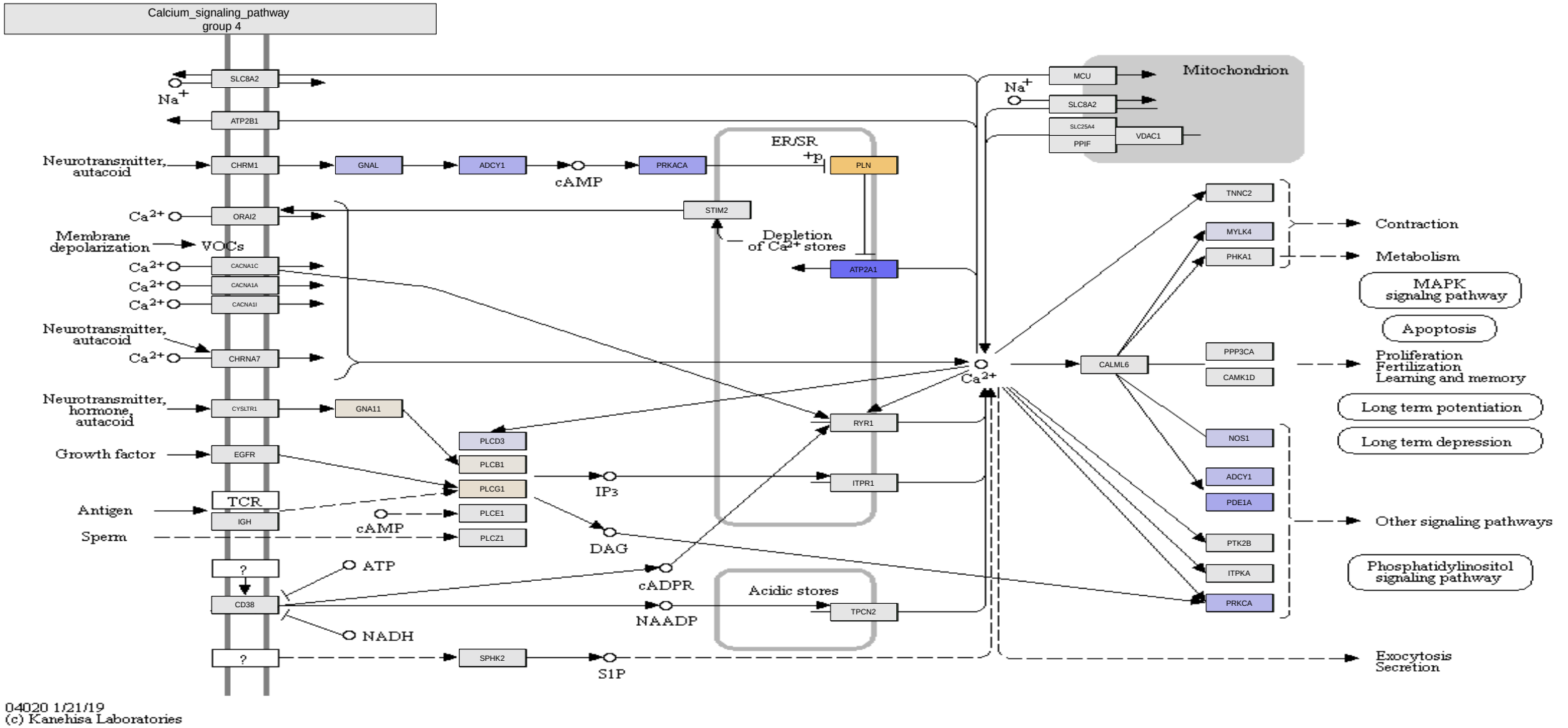
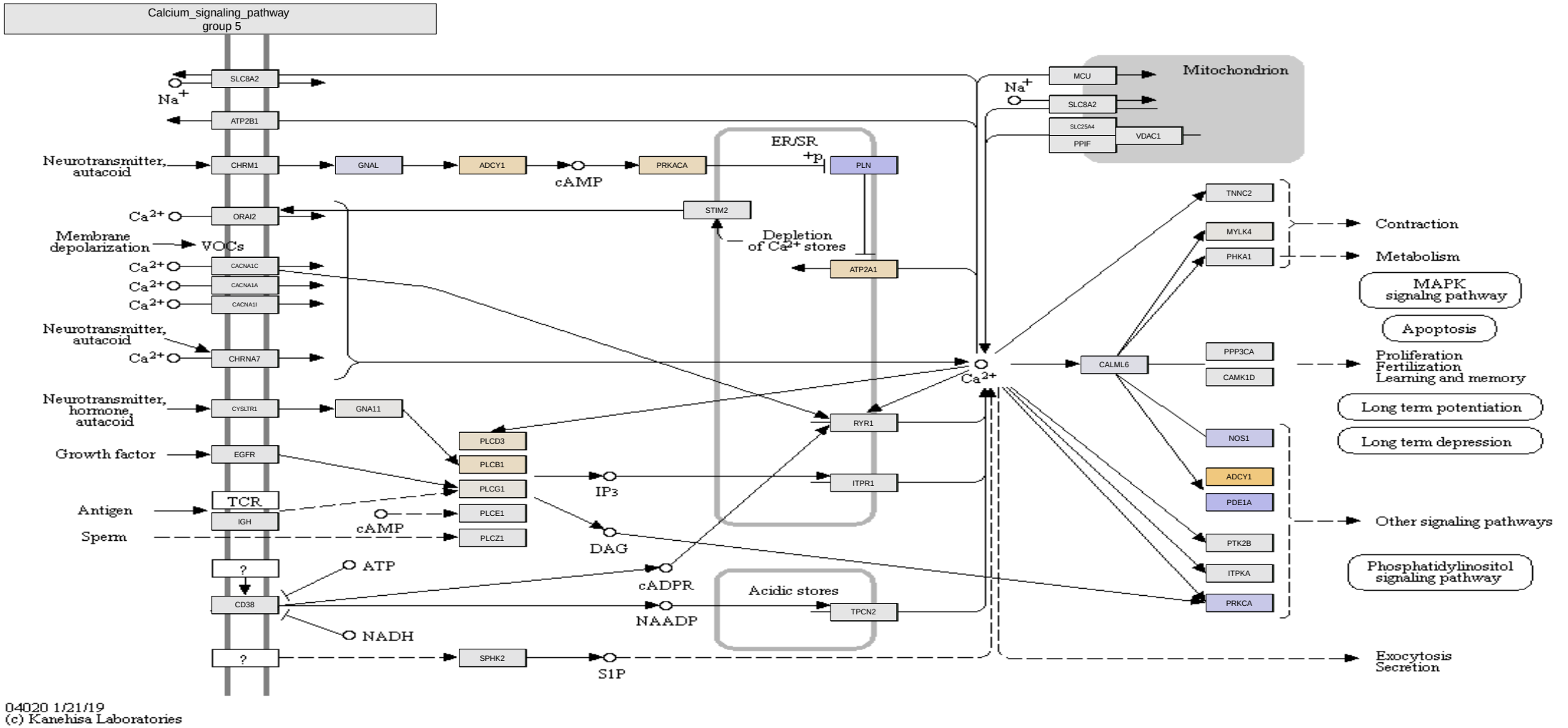

Calcium_signaling_pathway
group 3
SLC8A2
Na+
ATP2B1
Neurotransmitter, autacoid
CHRM1
GNAL
ADCY1
cAMP
PRKACA
ER/SR
+p
PLN
Ca2+
ORAI2
STIM2
Depletion of Ca2+ stores
Membrane depolarization
VOCs
CACNA1C
CACNA1A
CACNA1I
ATP2A1
Neurotransmitter, autacoid
CHRNA7
Ca2+
Neurotransmitter, hormone, autacoid
CYSLTR1
GNA11
PLCD3
PLCB1
PLCG1
PLCE1
PLCZ1
RYR1
ITPR1
IP3
DAG
Growth factor
EGFR
Antigen
TCR
IGH
Sperm
cAMP
?
ATP
CD38
NADH
cADPR
NAADP
Acidic stores
TPCN2
?
SPHK2
S1P
Mitochondrion
MCU
Na+
SLC8A2
SLC25A4
PPIF
VDAC1
Ca2+
CALML6
TNNC2
MYLK4
PHKA1
Contraction
Metabolism
MAPK signalng pathway
Apoptosis
PPP3CA
CAMK1D
Proliferation
Fertilization
Learning and memory
Long term potentiation
Long term depression
NOS1
ADCY1
PDE1A
PTK2B
ITPKA
PRKCA
Other signaling pathways
Phosphatidylinositol signaling pathway
Exocytosis
Secretion
04020 1/21/19
(c) Kanehisa Laboratories


Calcium_signaling_pathway
group 4
SLC8A2
Na+
ATP2B1
Neurotransmitter, autacoid
CHRM1
GNAL
ADCY1
cAMP
PRKACA
ER/SR
+p
PLN
Ca2+
ORAI2
STIM2
Depletion of Ca2+ stores
Membrane depolarization
VOCs
CACNA1C
CACNA1A
CACNA1I
ATP2A1
Neurotransmitter, autacoid
CHRNA7
Neurotransmitter, hormone, autacoid
CYSLTR1
GNA11
Growth factor
EGFR
TCR
Antigen
IGH
Sperm
PLCD3
PLCB1
PLCG1
PLCE1
PLCZ1
IP3
DAG
cAMP
RYR1
ITPR1
?
ATP
CD38
NADH
cADPR
NAADP
Acidic stores
TPCN2
?
SPHK2
S1P
Mitochondrion
MCU
Na+
SLC8A2
SLC25A4
PPIF
VDAC1
Ca2+
CALML6
TNNC2
MYLK4
PHKA1
Contraction
Metabolism
MAPK signalng pathway
Apoptosis
PPP3CA
CAMK1D
Proliferation
Fertilization
Learning and memory
Long term potentiation
Long term depression
NOS1
ADCY1
PDE1A
PTK2B
ITPKA
PRKCA
Other signaling pathways
Phosphatidylinositol signaling pathway
Exocytosis
Secretion
04020 1/21/19
(c) Kanehisa Laboratories


Calcium_signaling_pathway
group 5
SLC8A2
Na+
ATP2B1
Neurotransmitter, autacoid
CHRM1
GNAL
ADCY1
cAMP
PRKACA
ER/SR
+p
PLN
Ca2+
ORAI2
STIM2
Depletion of Ca2+ stores
Membrane depolarization
VOCs
CACNA1C
CACNA1A
CACNA1I
ATP2A1
Neurotransmitter, autacoid
CHRNA7
Neurotransmitter, hormone, autacoid
CYSLTR1
GNA11
Growth factor
EGFR
TCR
Antigen
IGH
Sperm
PLCD3
PLCB1
PLCG1
PLCE1
PLCZ1
IP3
DAG
cAMP
RYR1
ITPR1
?
ATP
CD38
NADH
cADPR
NAADP
Acidic stores
TPCN2
?
SPHK2
S1P
Mitochondrion
MCU
Na+
SLC8A2
SLC25A4
PPIF
VDAC1
Ca2+
CALML6
TNNC2
MYLK4
PHKA1
Contraction
Metabolism
MAPK signalng pathway
Apoptosis
PPP3CA
CAMK1D
Proliferation
Fertilization
Learning and memory
Long term potentiation
Long term depression
NOS1
ADCY1
PDE1A
PTK2B
ITPKA
PRKCA
Other signaling pathways
Phosphatidylinositol signaling pathway
Exocytosis
Secretion
04020 1/21/19
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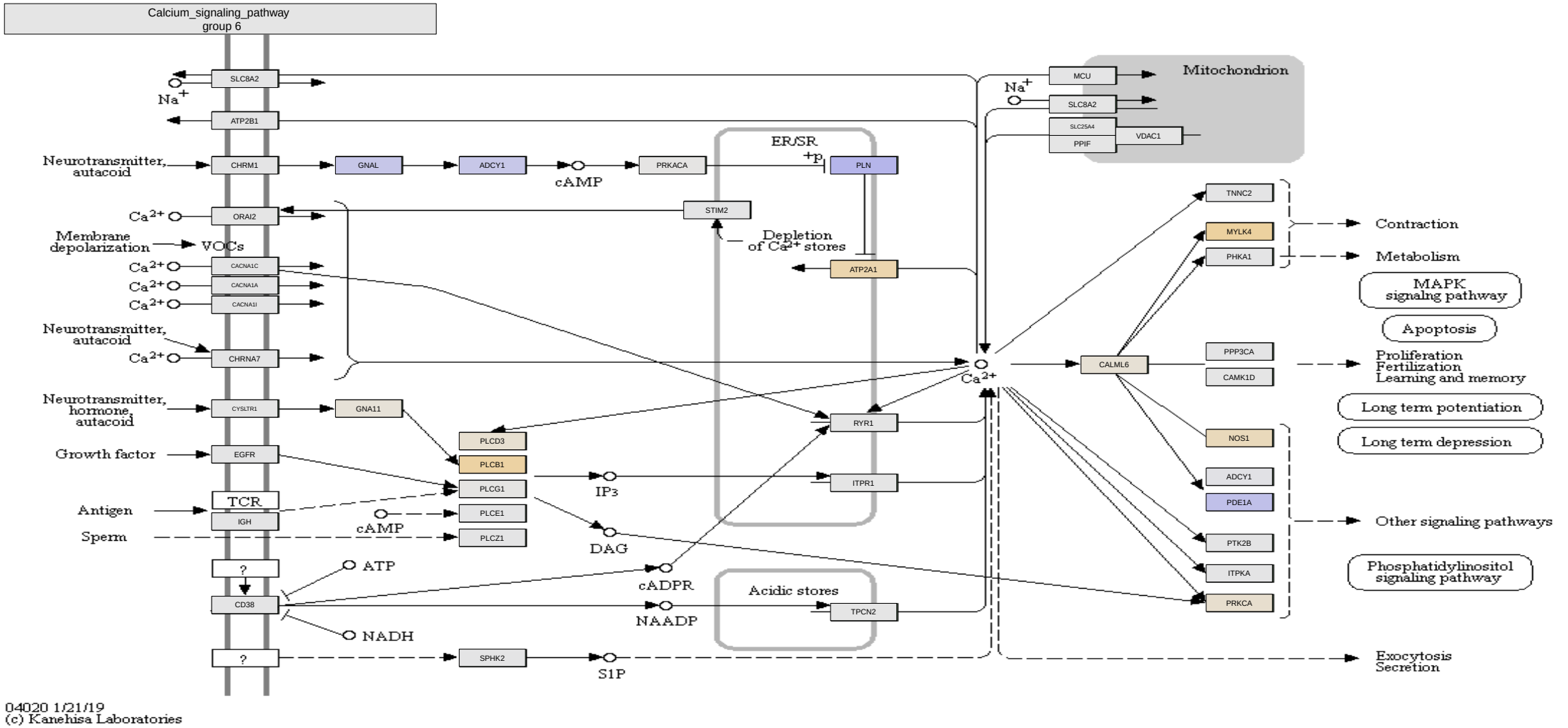
Calcium_signaling_pathway
group 6
SLC8A2
Na+
ATP2B1
Neurotransmitter, autacoid
CHRM1
GNAL
ADCY1
cAMP
PRKACA
ER/SR
+p
PLN
Ca2+
ORAI2
STIM2
Depletion of Ca2+ stores
Membrane depolarization
VOCs
CACNA1C
CACNA1A
CACNA1I
ATP2A1
Neurotransmitter, autacoid
CHRNA7
Neurotransmitter, hormone, autacoid
CYSLTR1
GNA11
Growth factor
EGFR
PLCD3
PLCB1
PLCG1
PLCE1
PLCZ1
IP3
DAG
RYR1
ITPR1
TCR
IGH
Antigen
Sperm
cAMP
?
ATP
CD38
NADH
cADPR
NAADP
Acidic stores
TPCN2
?
SPHK2
S1P
Mitochondrion
MCU
Na+
SLC8A2
SLC25A4
PPIF
VDAC1
Ca2+
CALML6
TNNC2
MYLK4
PHKA1
Contraction
Metabolism
MAPK signalng pathway
Apoptosis
PPP3CA
CAMK1D
Proliferation
Fertilization
Learning and memory
Long term potentiation
Long term depression
NOS1
ADCY1
PDE1A
PTK2B
ITPKA
PRKCA
Other signaling pathways
Phosphatidylinositol signaling pathway
Exocytosis
Secretion
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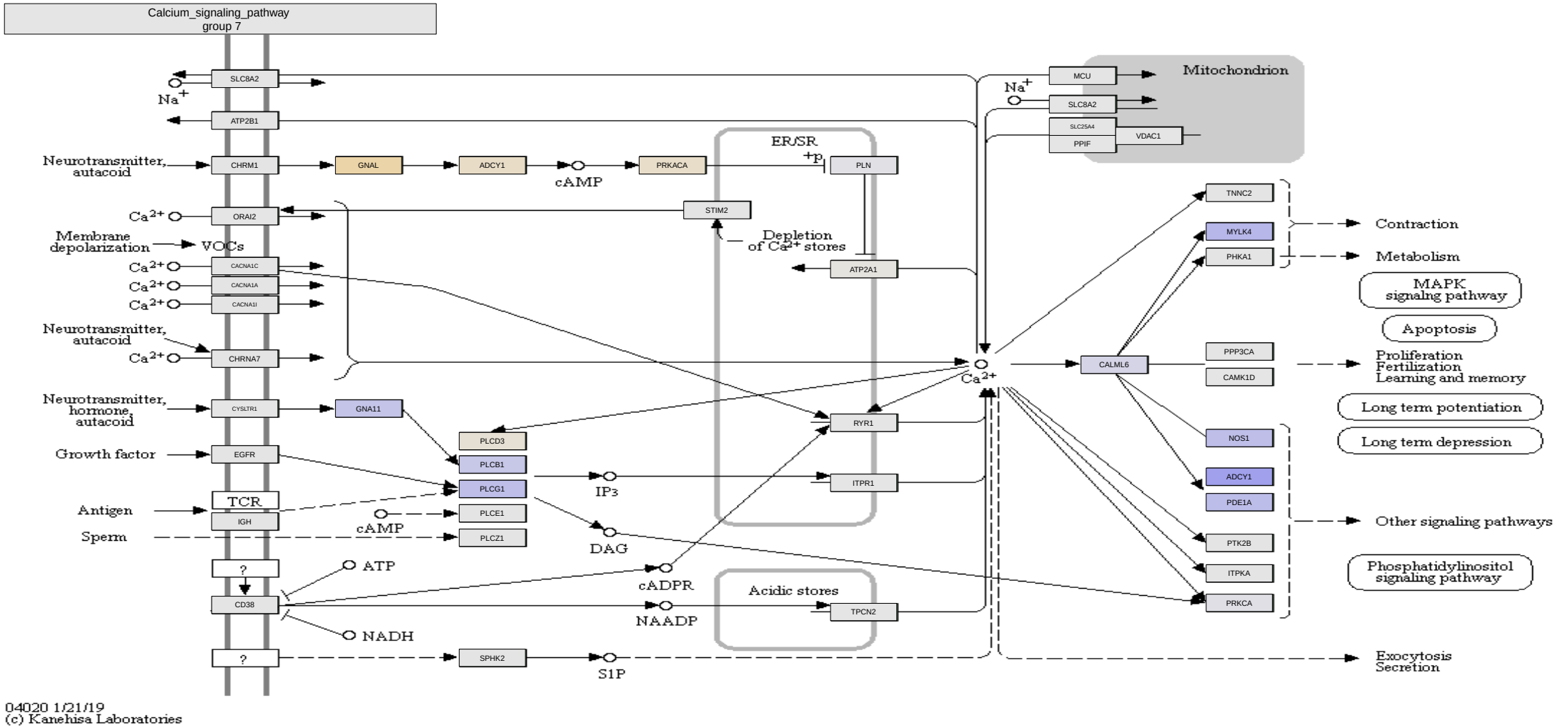
Calcium_signaling_pathway
group 7
SLC8A2
Na+
ATP2B1
Neurotransmitter, autacoid
CHRM1
GNAL
ADCY1
cAMP
PRKACA
ER/SR
+p
PLN
Ca2+
ORAI2
STIM2
Depletion of Ca2+ stores
Membrane depolarization
VOCs
CACNA1C
CACNA1A
CACNA1I
ATP2A1
Neurotransmitter, autacoid
CHRNA7
Neurotransmitter, hormone, autacoid
CYSLTR1
GNA11
Growth factor
EGFR
PLCD3
PLCB1
PLCG1
PLCE1
PLCZ1
IP3
DAG
RYR1
ITPR1
Antigen
TCR
IGH
Sperm
cAMP
?
ATP
CD38
NADH
cADPR
NAADP
Acidic stores
TPCN2
?
SPHK2
S1P
Mitochondrion
MCU
Na+
SLC8A2
SLC25A4
PPIF
VDAC1
Ca2+
CALML6
TNNC2
MYLK4
PHKA1
Contraction
Metabolism
MAPK signalng pathway
Apoptosis
PPP3CA
CAMK1D
Proliferation
Fertilization
Learning and memory
Long term potentiation
Long term depression
NOS1
ADCY1
PDE1A
PTK2B
ITPKA
PRKCA
Other signaling pathways
Phosphatidylinositol signaling pathway
Exocytosis
Secretion
04020 1/21/19
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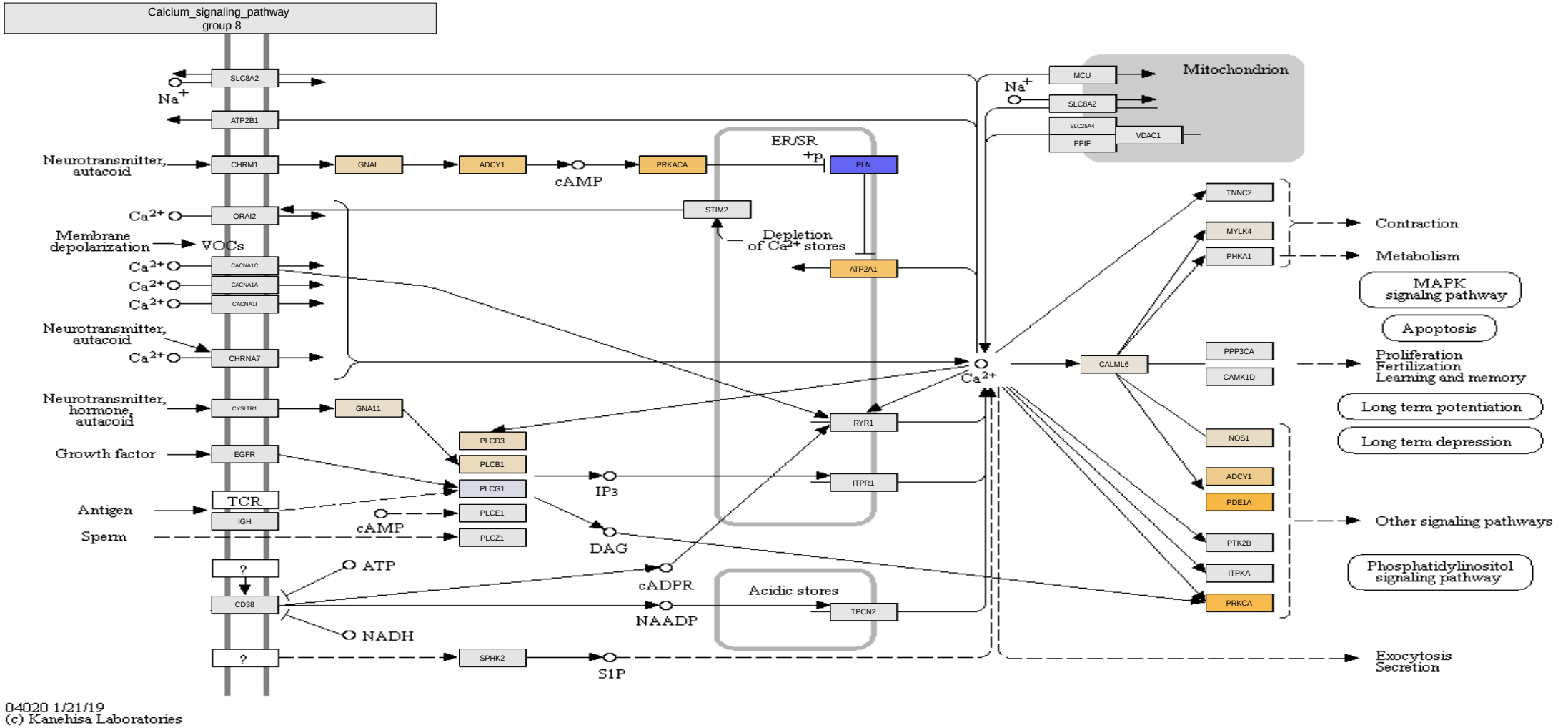
Calcium_signaling_pathway
group 8
SLC8A2
Na+
ATP2B1
Neurotransmitter, autacoid
CHRM1
GNAL
ADCY1
cAMP
PRKACA
ER/SR
+p
PLN
Ca2+
ORAI2
STIM2
Depletion of Ca2+ stores
ATP2A1
Membrane depolarization
VOCs
CACNA1C
CACNA1A
CACNA1I
Neurotransmitter, autacoid
CHRNA7
Neurotransmitter, hormone, autacoid
CYSLTR1
GNA11
Growth factor
EGFR
Antigen
TCR
IGH
Sperm
PLCD3
PLCB1
PLCG1
PLCE1
PLCZ1
IP3
DAG
cAMP
RYR1
ITPR1
?
ATP
CD38
NADH
cADPR
NAADP
Acidic stores
TPCN2
?
SPHK2
S1P
Mitochondrion
MCU
Na+
SLC8A2
SLC25A4
PPIF
VDAC1
Ca2+
CALML6
TNNC2
MYLK4
PHKA1
Contraction
Metabolism
MAPK signalng pathway
Apoptosis
PPP3CA
CAMK1D
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Fertilization
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Long term potentiation
Long term depression
NOS1
ADCY1
PDE1A
PTK2B
ITPKA
PRKCA
Other signaling pathways
Phosphatidylinositol signaling pathway
Exocytosis
Secretion
04020 1/21/19
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