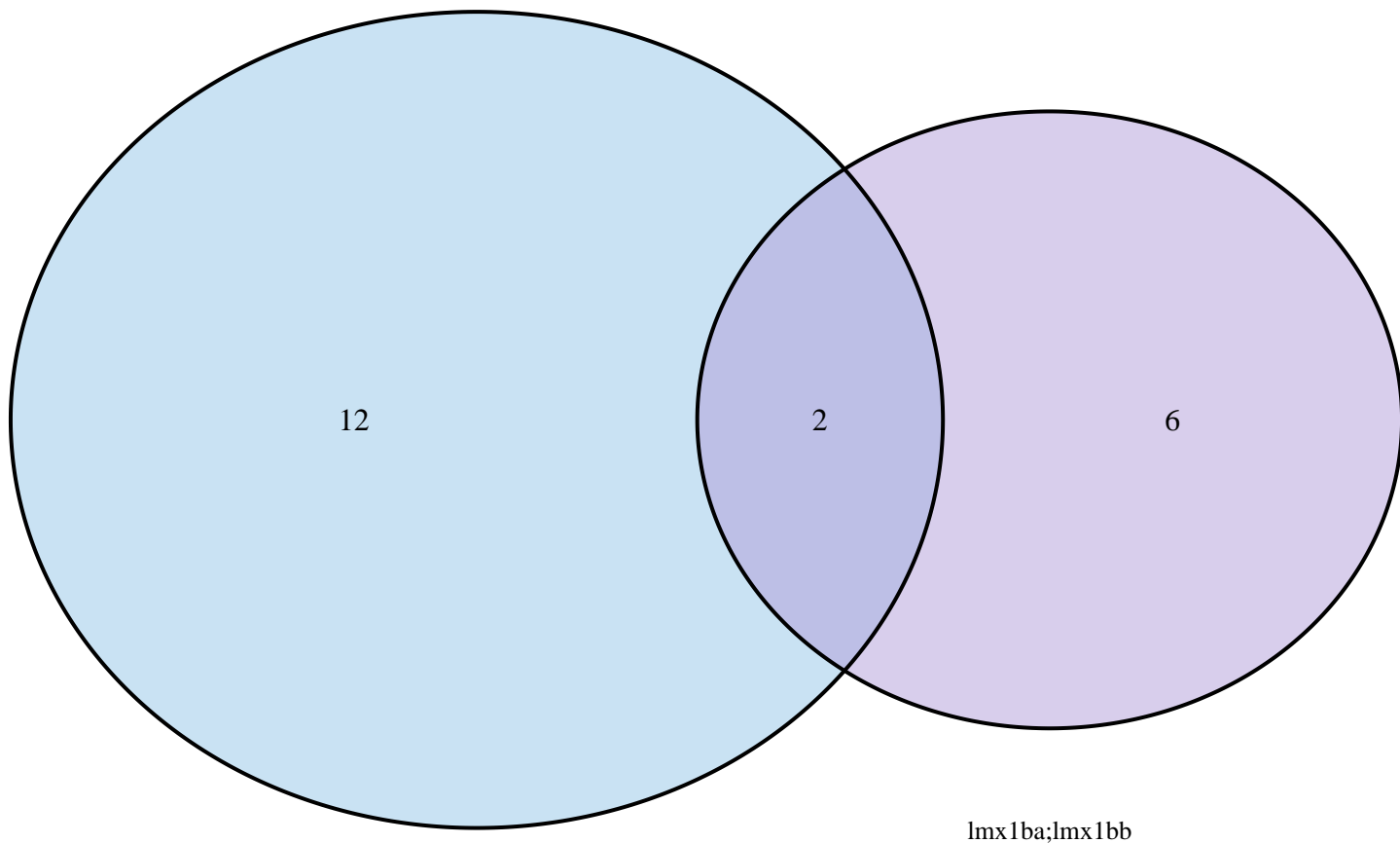


Affected Cell Types at 48 hpf

Cell types with $|\log \text{ fold change}| > 1$

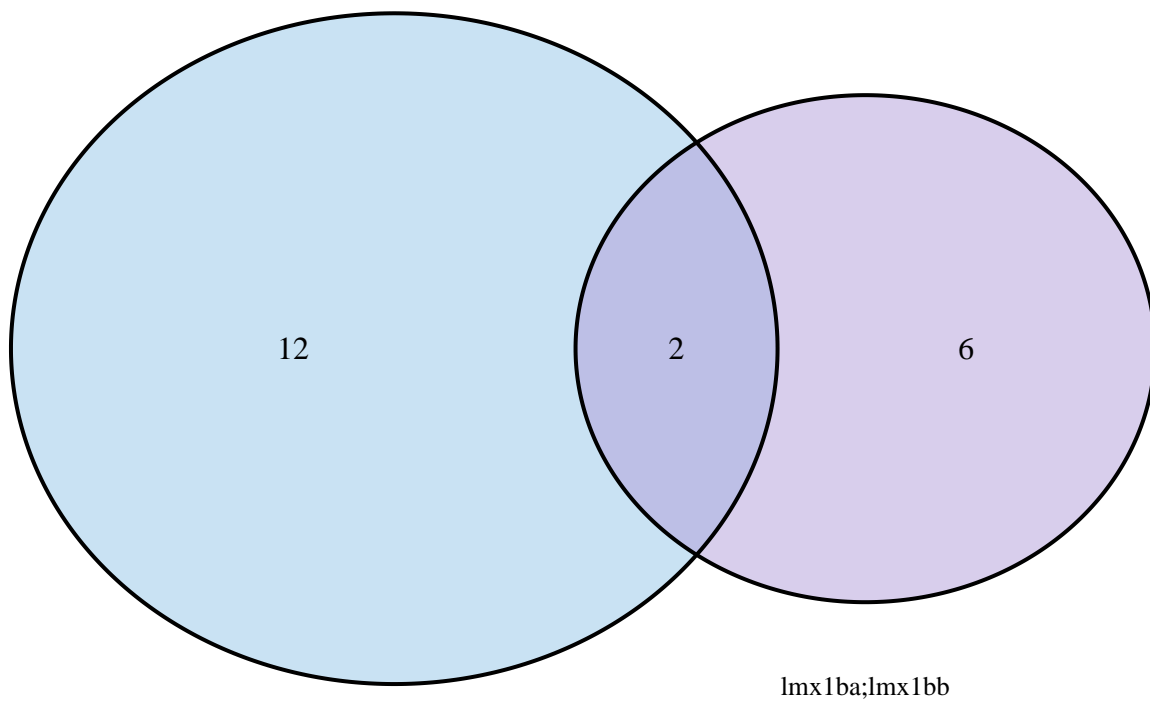


ctrl-inj

lmx1ba;lmx1bb

Affected Cell Types at 48 hpf

Cell types with $|\log \text{ fold change}| > 1$



ctrl-inj

lmx1ba;lmx1bb

Timepoint: 48 hpf

lmx1ba;lmx1bb only (6 cell types):

est, pre-migratory (prdm1a+), neural tube-like connective tissue, terminal epiderm 16, unknown (neuron, hctr2+, opn8b+), unknown

ctrl-inj only (12 cell types):

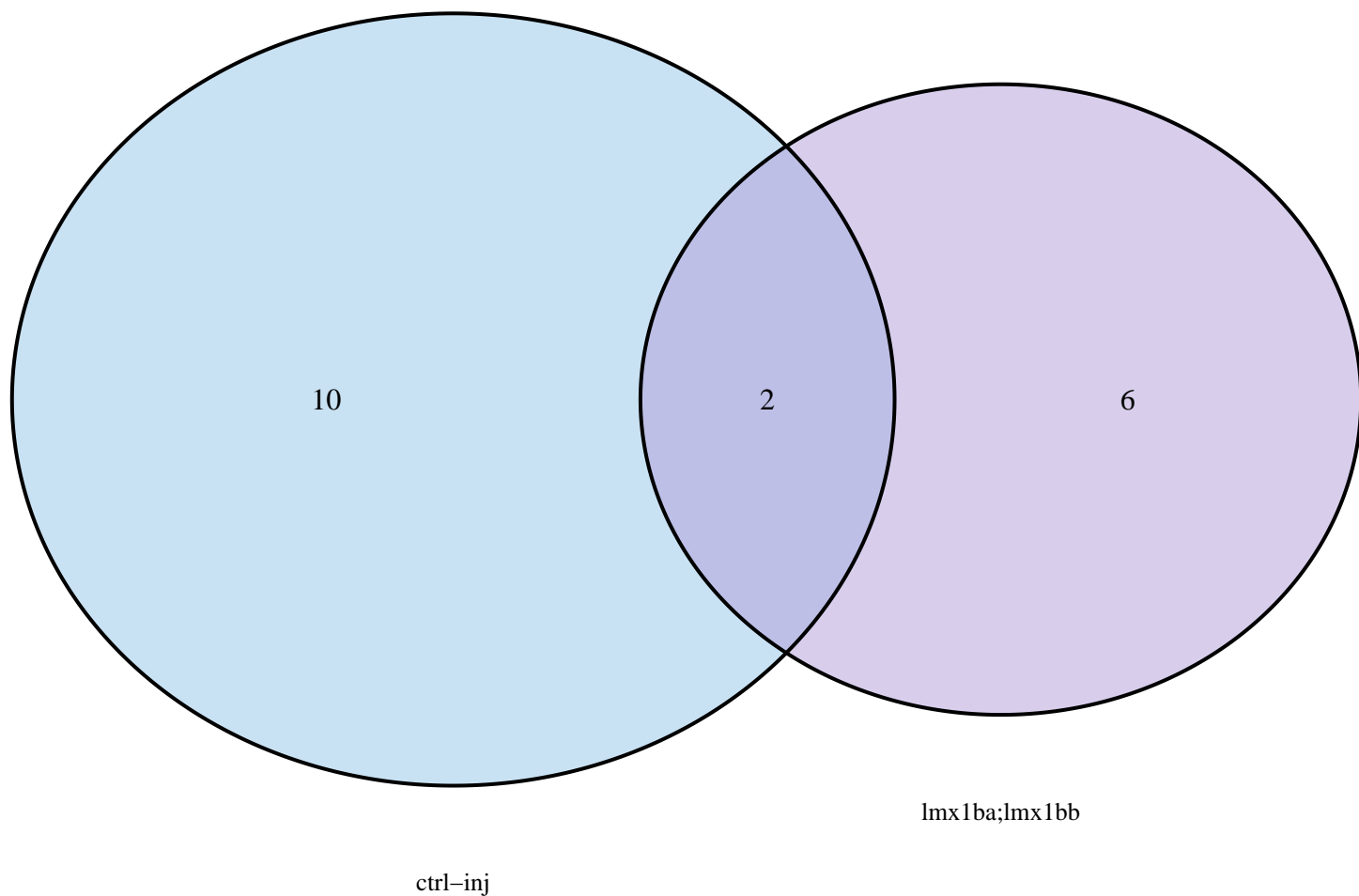
let cell, head/neck muscle group 2, hepatocyte, myeloid (doublets, muscle , ttn.1+), odontoblast (tfr1a+), pancreatic duct, periderm

Both (2 cell types):

retina, progenitor (atoh7+) (suspected doublets), terminal epiderm 3

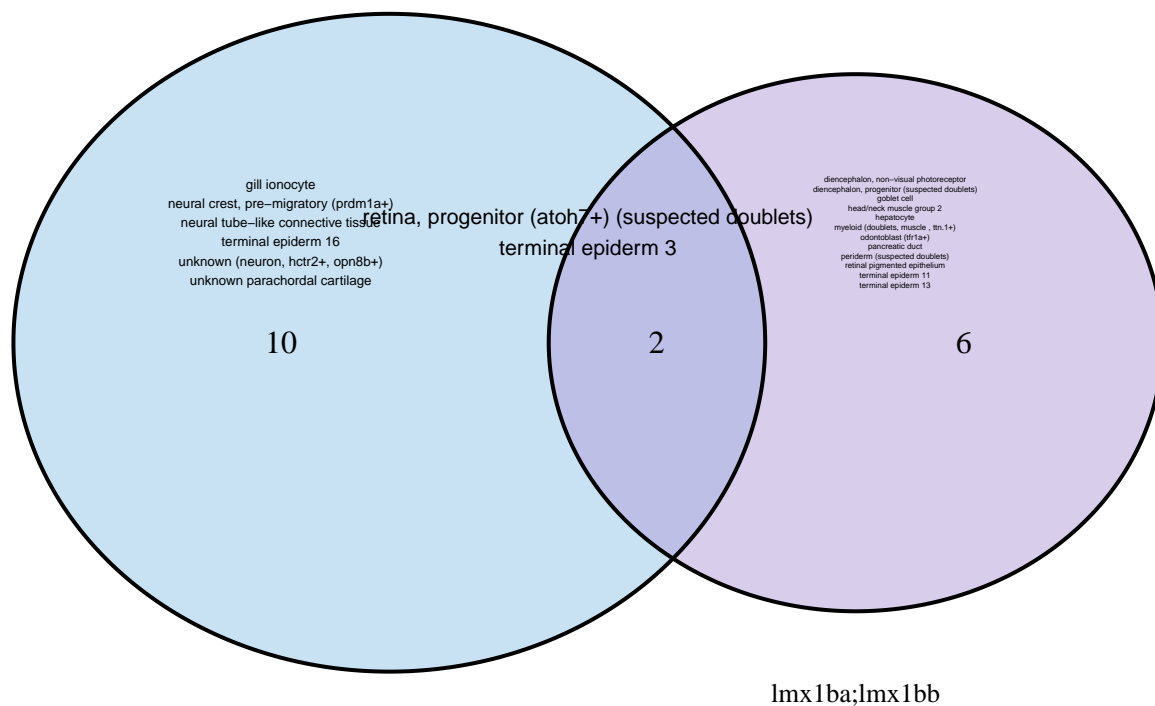
Affected Cell Types at 72 hpf

Cell types with $|\log \text{ fold change}| > 1$



Affected Cell Types at 72 hpf

Cell types with $|\log \text{ fold change}| > 1$



ctrl-inj

lmx1ba;lmx1bb

Timepoint: 72 hpf

lmx1ba;lmx1bb only (6 cell types):

lateral tube-like connective tissue, terminal epiderm 2, terminal epiderm 9, differentiated 2, terminal periderm, cloaca, unknown paracrine

ctrl-inj only (10 cell types):

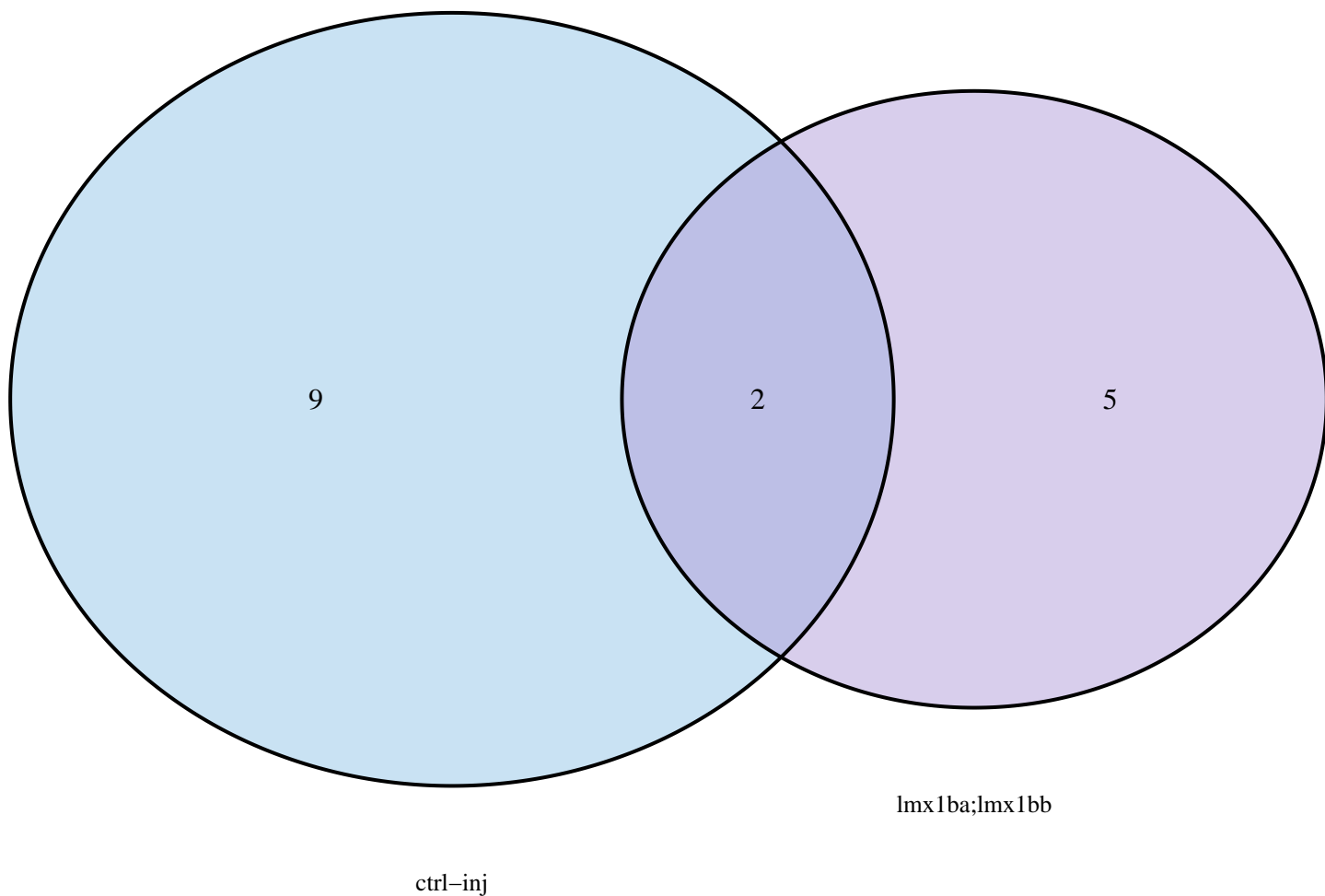
muscle group 2, myeloid (doublets, muscle , ttn.1+), odontoblast (tfr1a+), periderm (suspected doublets), posterior lateral line primordium

Both (2 cell types):

hepatocyte, pancreatic duct

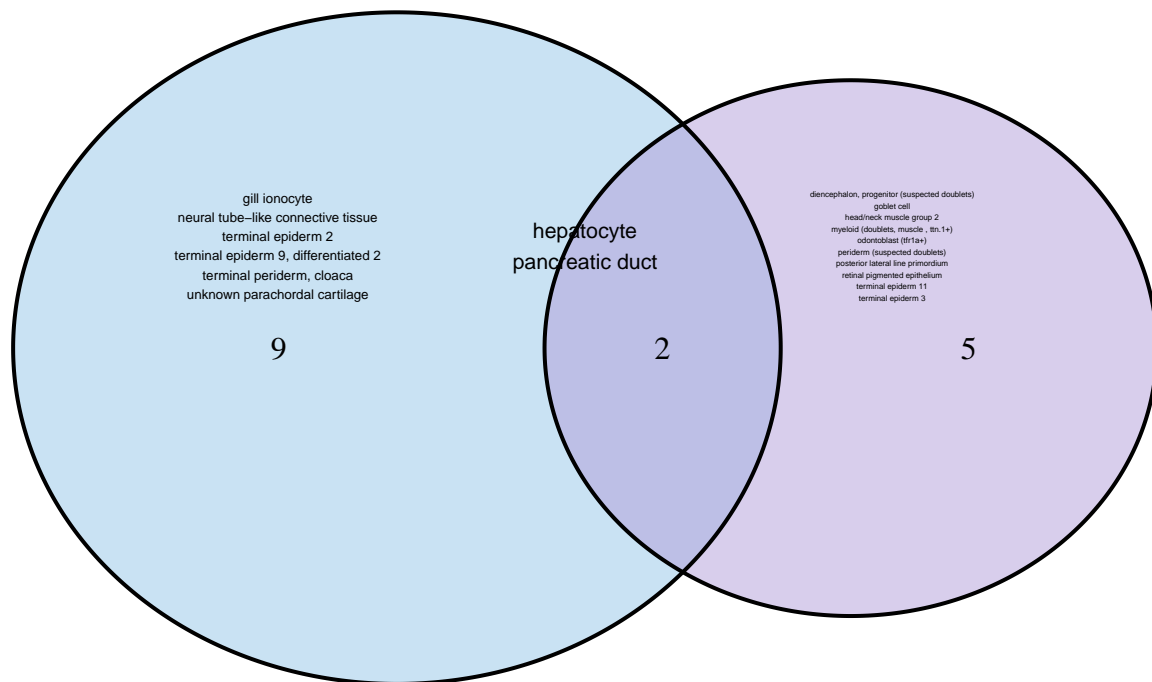
Affected Cell Types at 60 hpf

Cell types with $|\log \text{ fold change}| > 1$



Affected Cell Types at 60 hpf

Cell types with $|\log \text{ fold change}| > 1$



lmx1ba;lmx1bb

ctrl-inj

Timepoint: 60 hpf

lmx1ba;lmx1bb only (5 cell types):

gill ionocyte, neural tube-like connective tissue, terminal epiderm 2, terminal periderm, cloaca, unknown parachordal cartilage

ctrl-inj only (9 cell types):

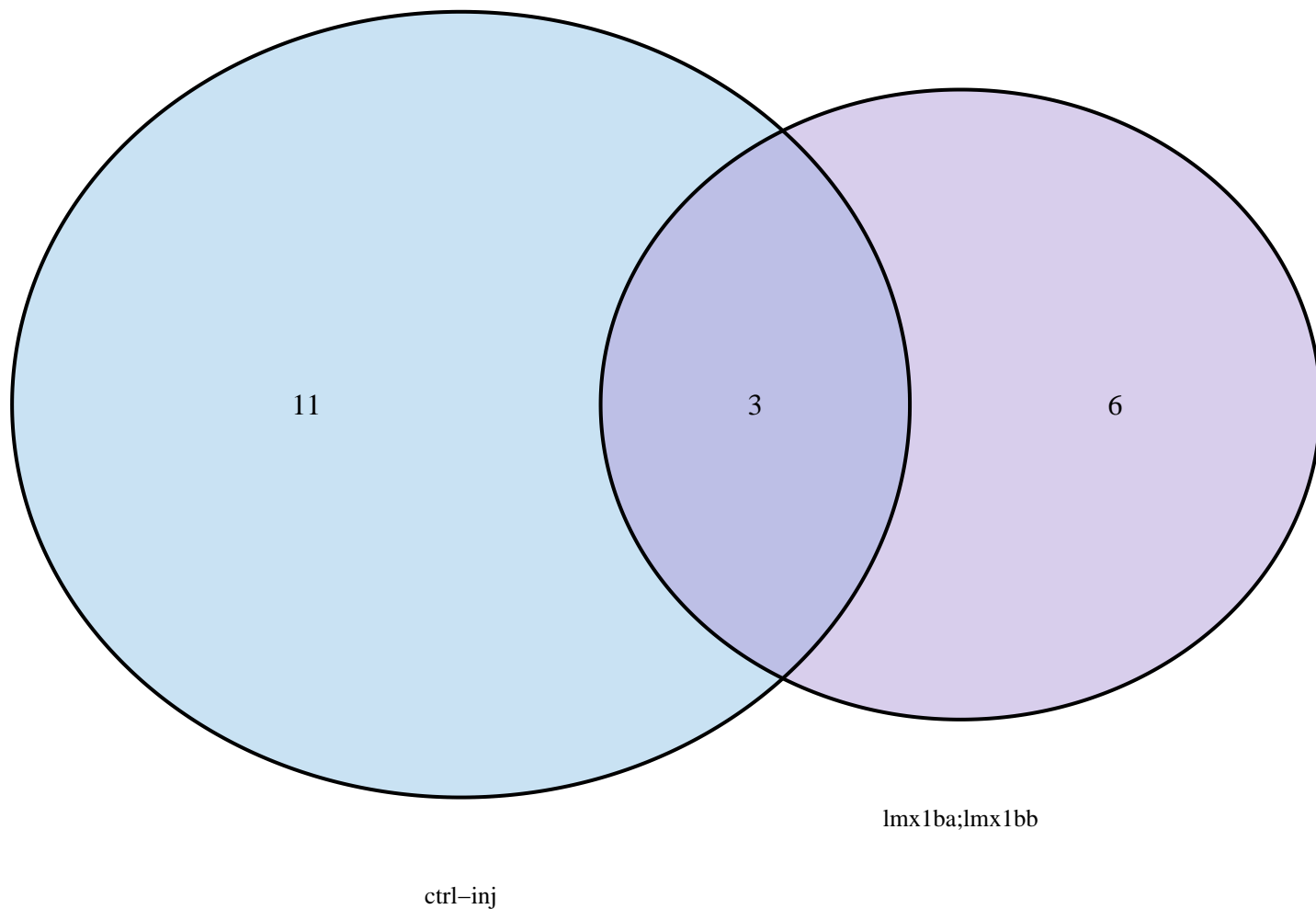
t cell, head/neck muscle group 2, hepatocyte, myeloid (doublets, muscle , ttn.1+), odontoblast (tfr1a+), periderm (suspected doublets)

Both (2 cell types):

pancreatic duct, terminal epiderm 3

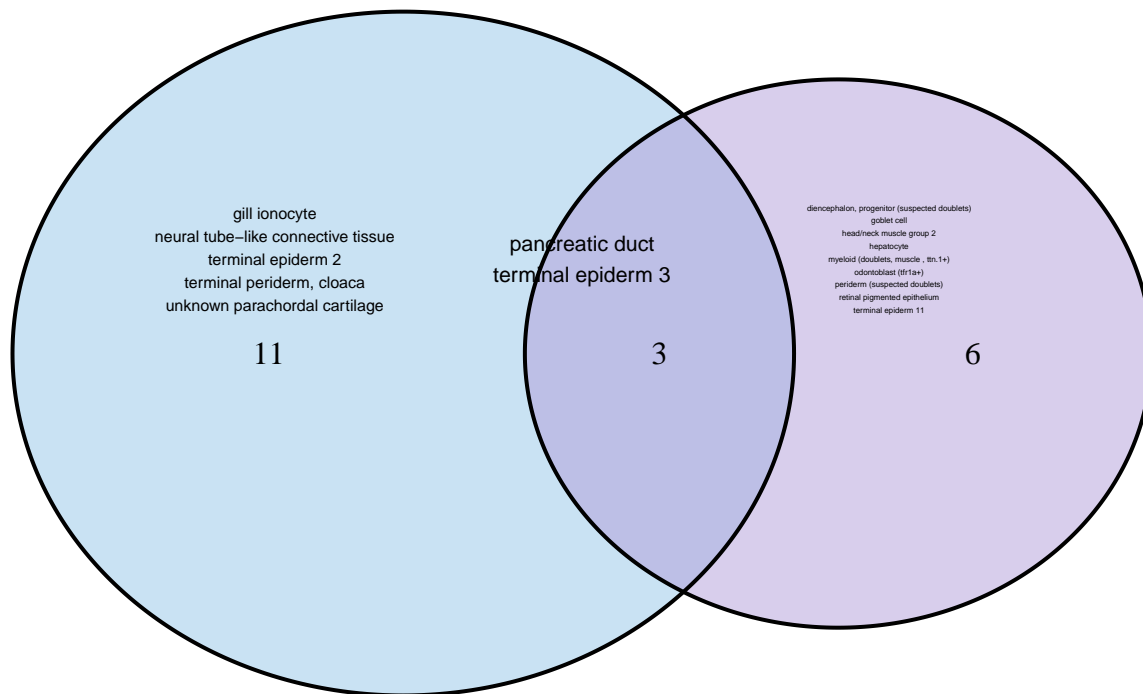
Affected Cell Types at 36 hpf

Cell types with $|\log \text{ fold change}| > 1$



Affected Cell Types at 36 hpf

Cell types with $|\log \text{ fold change}| > 1$



lmx1ba;lmx1bb

ctrl-inj

Timepoint: 36 hpf

lmx1ba;lmx1bb only (6 cell types):

gill ionocyte, neural crest, pre-migratory (prdm1a+), neural tube-like connective tissue, unknown (neuron, hctr2+, opn8b+), unknown

ctrl-inj only (11 cell types):

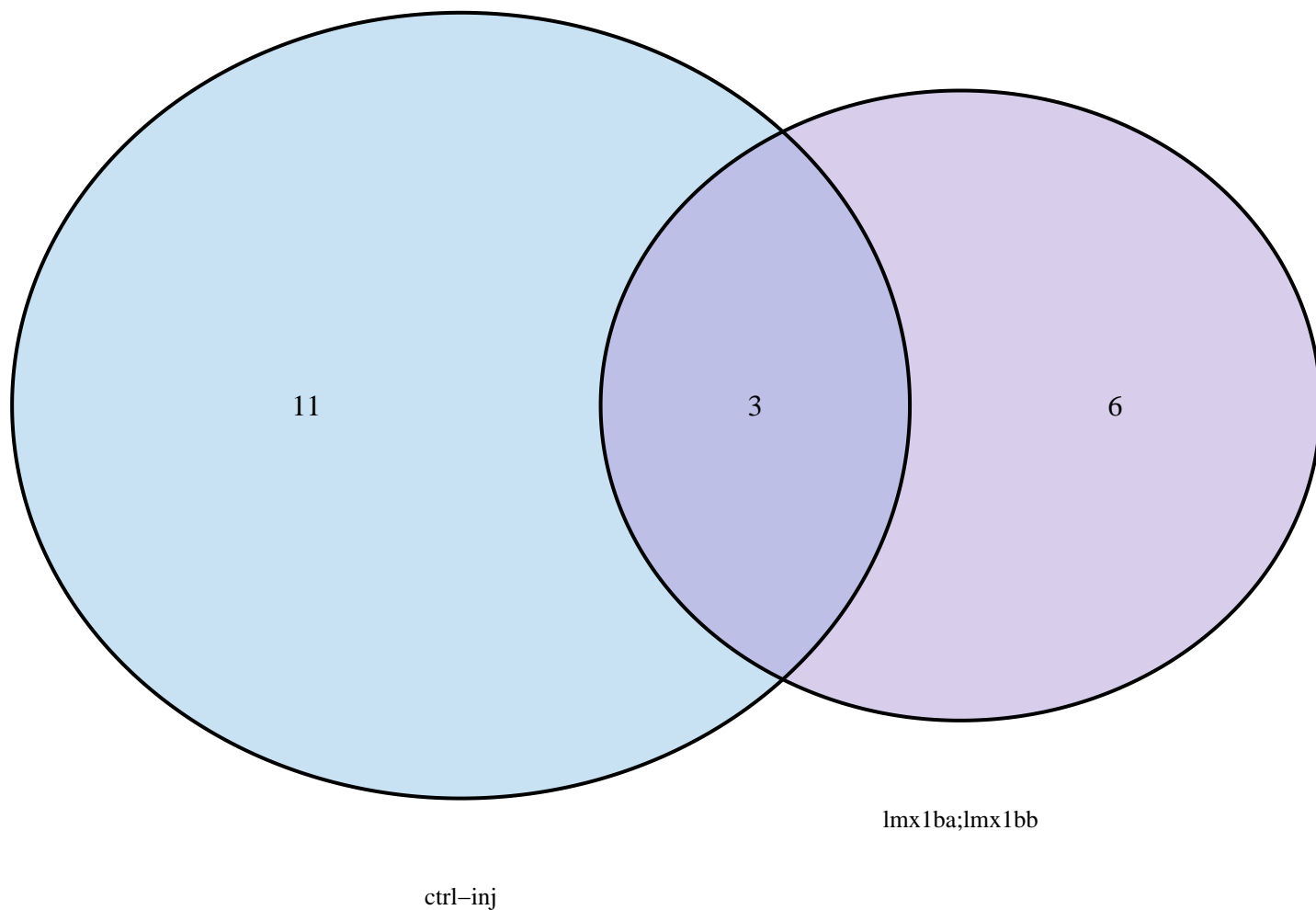
ets), goblet cell, head/neck muscle group 2, hepatocyte, myeloid (doublets, muscle , ttn.1+), odontoblast (tfr1a+), periderm (suspected

Both (3 cell types):

retina, progenitor (atoh7+) (suspected doublets), terminal epiderm 16, terminal epiderm 3

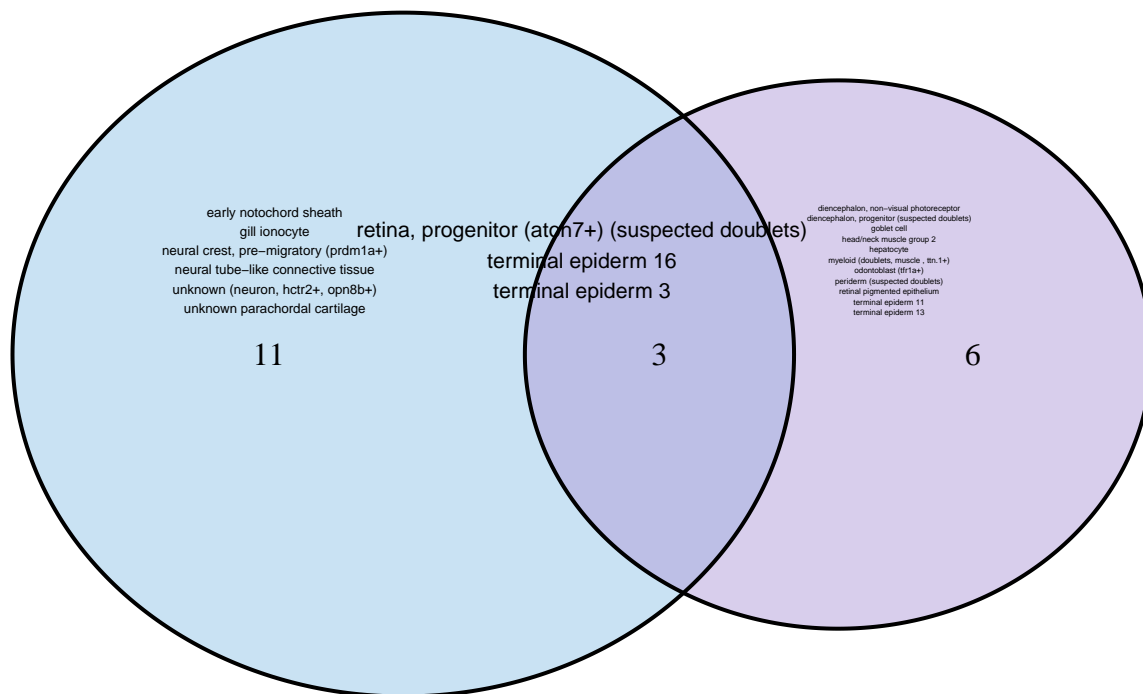
Affected Cell Types at 18 hpf

Cell types with $|\log \text{ fold change}| > 1$



Affected Cell Types at 18 hpf

Cell types with $|\log \text{ fold change}| > 1$



lmx1ba;lmx1bb

ctrl-inj

Timepoint: 18 hpf

lmx1ba;lmx1bb only (6 cell types):

d sheath, gill ionocyte, neural tube-like connective tissue, terminal epiderm 2, unknown (neuron, hctr2+, opn8b+), unknown parach

ctrl-inj only (11 cell types):

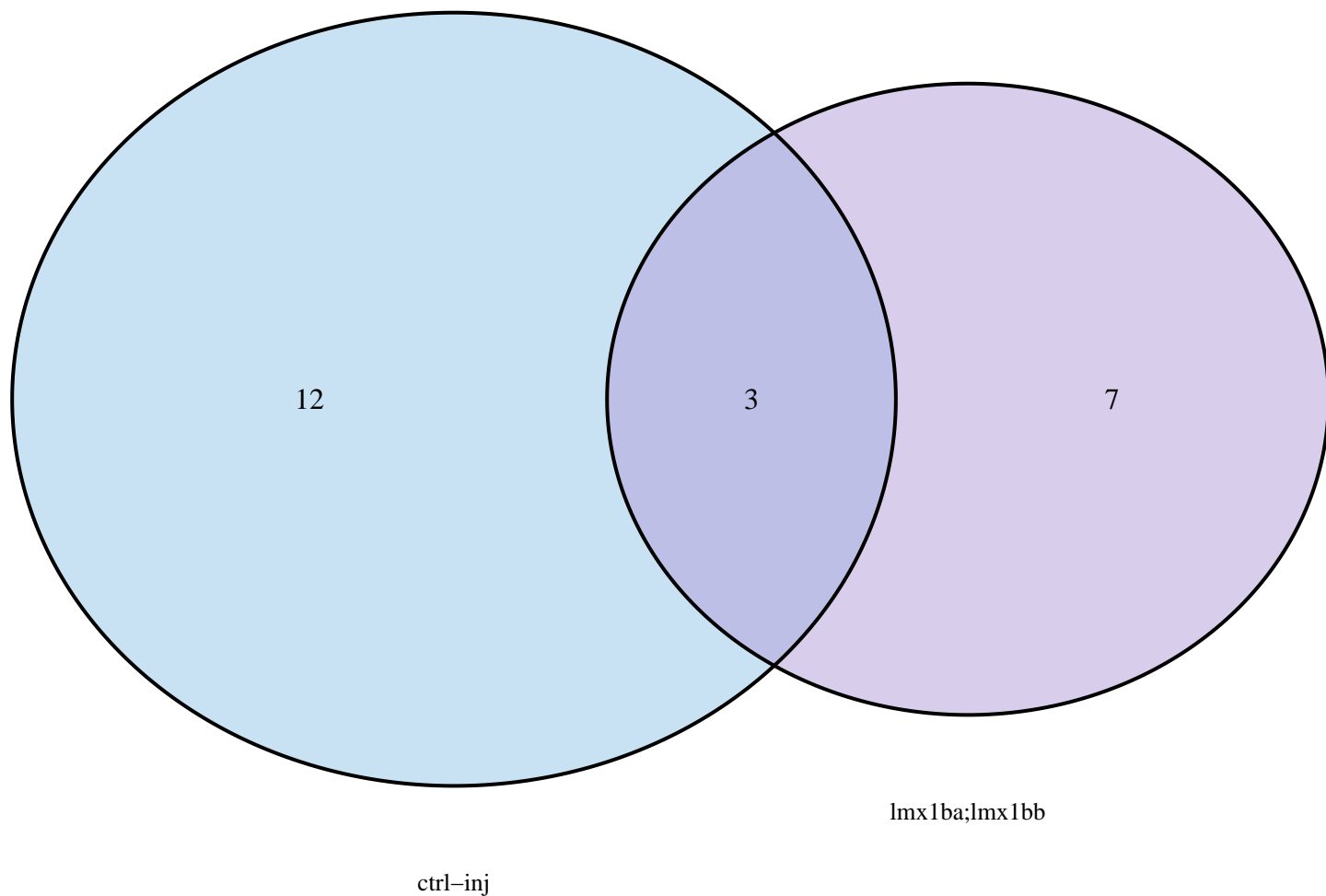
d/neck muscle group 2, myeloid (doublets, muscle , ttn.1+), pancreatic duct, periderm (suspected doublets), posterior lateral line pri

Both (3 cell types):

hepatocyte, retina, progenitor (atoh7+) (suspected doublets), terminal epiderm 3

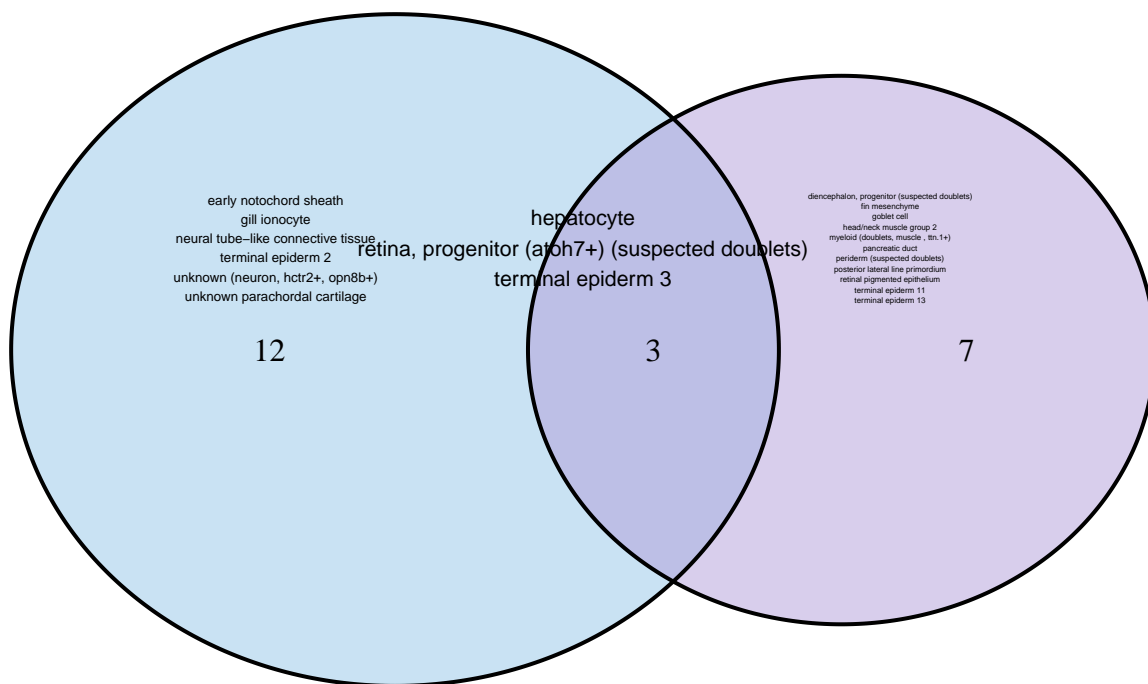
Affected Cell Types at 24 hpf

Cell types with $|\log \text{ fold change}| > 1$



Affected Cell Types at 24 hpf

Cell types with $|\log \text{ fold change}| > 1$



lmx1ba;lmx1bb

ctrl-inj

Timepoint: 24 hpf

lmx1ba;lmx1bb only (7 cell types):

ne, neural crest, pre-migratory (prdm1a+), neural tube-like connective tissue, terminal epiderm 16, unknown (neuron, hctr2+, opn8l

ctrl-inj only (12 cell types):

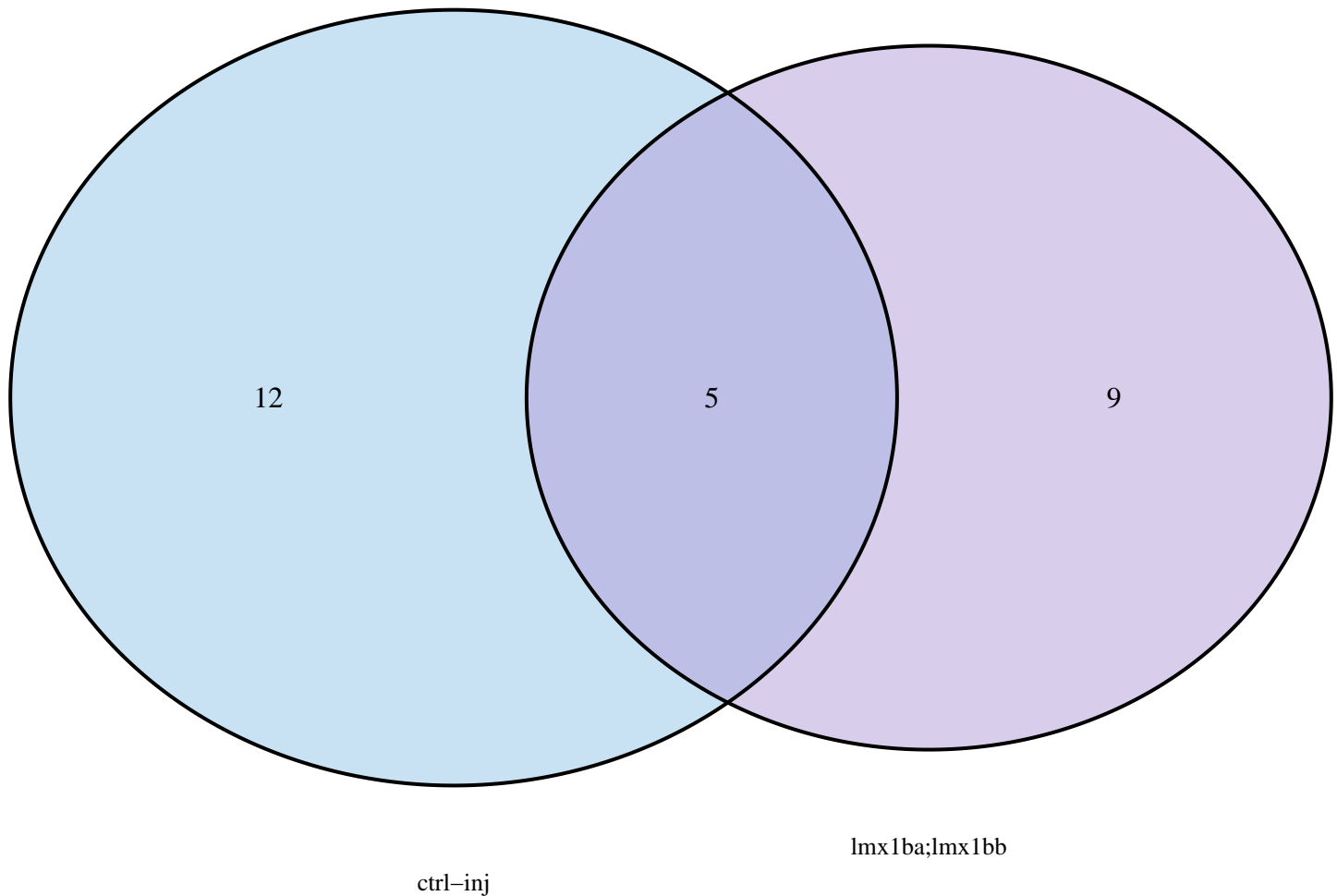
yme, goblet cell, head/neck muscle group 2, myeloid (doublets, muscle , ttn.1+), pancreatic duct, periderm (suspected doublets), po

Both (3 cell types):

hepatocyte, retina, progenitor (atoh7+) (suspected doublets), terminal epiderm 3

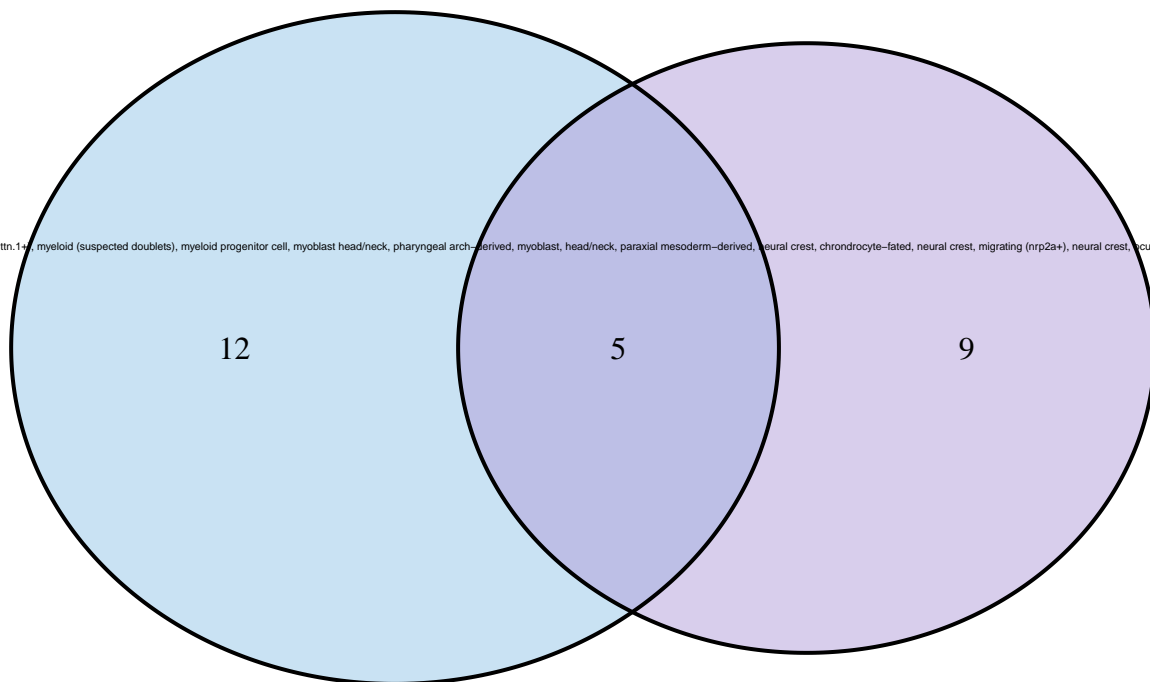
Affected Cell Types Across All Timepoints

Cell types with $|\log \text{ fold change}| > 1$



Affected Cell Types Across All Timepoints

Cell types with $|\log \text{ fold change}| > 1$



ctrl-inj

lmx1ba;lmx1bb

All Timepoints Combined

lmx1ba;lmx1bb only (9 cell types):

like connective tissue, unknown (neuron, hctr2+, opn8b+), unknown parachordal cartilage, terminal epiderm 2, terminal epiderm 9,

ctrl-inj only (12 cell types):

d/neck muscle group 2, myeloid (doublets, muscle , ttn.1+), odontoblast (tfr1a+), periderm (suspected doublets), retinal pigmented

Both (5 cell types):

retina, progenitor (atoh7+) (suspected doublets), terminal epiderm 16, terminal epiderm 3, hepatocyte, pancreatic duct