

CHORDATES

Cephalo-chordates

Olfactores

amphioxus

Urochordates

Vertebrates

ascidians

larvaceans

zebrafish

xenopus

mouse

Pax2/5/8 (red)

Pax2/5/8b (white)
Pax2/5/8a (red, blue)

Pax2/5/8b (white, red, blue)
Pax2/5/8a (red, blue)

Pax8 (red, blue)
Pax5 (white, blue)
Pax2b (blue)
Pax2a (red, blue)

Pax8 (white, blue)
Pax5 (white, blue)
Pax2 (red, blue)

Pax8 (red, blue)
Pax5 (white)
Pax2 (white, blue)

teleost R3
genome duplication

Pax2/5/8b (red, white, blue)
Pax2/5/8a (red, blue)

Pax8 (red, blue)
Pax5 (white, blue)
Pax2 (red, blue)

urochordate-specific
gene duplication

Pax2/5/8 (red, blue)

vertebrate R1&R2
genome duplications

Neurogenic Placode derivatives
(e.g. otic placode)

Endostyle

Epithelial fusions and perforations

