

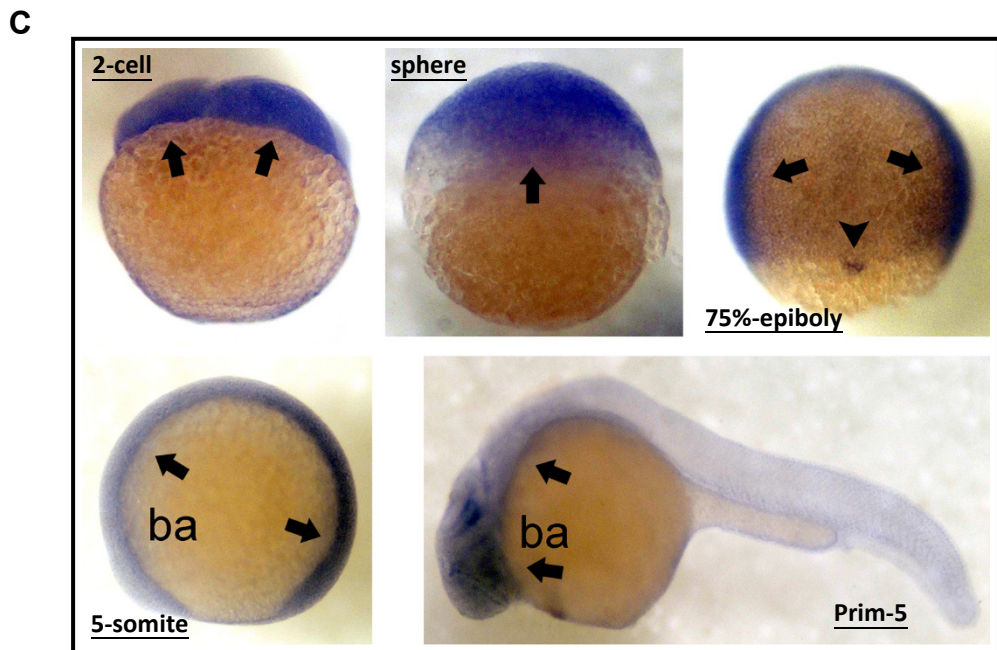
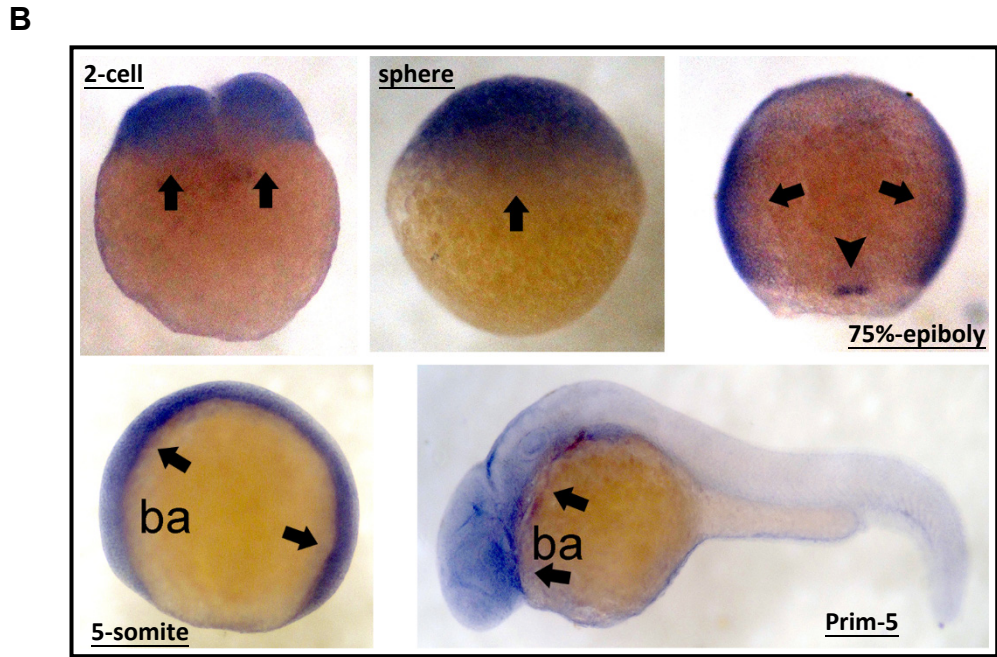
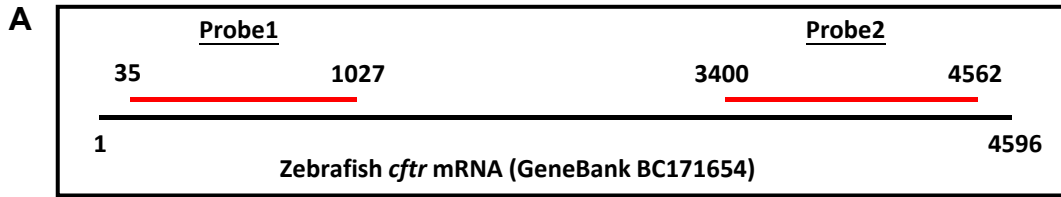
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| Human | MQRSEFEDSVVSKLDESWIRLDRAGYRQRLEISLIDKESVMSADLSEBLEREWDRDASRENRKRLINLRRCFFWRMFYEIFLIDGVYRAVQELDLGRITIASV | 109 |
| Zebrafish | MQRSEFEDANCLSRLEFWINEDIRAGFKERRESLIDKESVMSADLSEBLEREWDRDASRENRKRESLIRAPRCYIKFLDFEFLIDGVYRAVQELDLGRITIASV | 110 |
| Human | EDNKRDESLIAYGIGLGLLIVRGLLIPAFHGLHHEMQRITMSEIYKRTLKLSSRVLDKISGQLVSLSENNLREDEG...LAIARFWVPLQVLDLGLIWE | 217 |
| Zebrafish | EDARHEDRANGYFLAFGLGLITRGLLIPAFHGLHHEMQRITMSEIYKRTLKLSSRVLDKISGQLVSLSENNLREDEG...LAIARFWVPLQVLDLGLIWE | 220 |
| Human | ELQASLQCGGLIIVLAFKCEGRMMRFRICRAGKISQCVITISEWIDAKCVKAKQNEEDNEMRERLIDGTEALTRYAAYVYVNSSEFFSCGIVELSLTEFAL | 327 |
| Zebrafish | ELIVNSLQGLAAISLQGLVLCGLSHRGGFKRQSVLLINFRALITSEIMQALSVKAGQWEDMPTLFRALIDGVWYTRKIGSLIYVNSSEFFSCGIVIVAAVVEFAL | 330 |
| Human | ITGILHREITFTIEFGVILNAYVTRQFNAVYINYSLGLDNRQIQFQCEQYITLQNTITLTVVMENVTFRDEGSELFRKQCNINNRKTSNGEDSEFFSFLG | 437 |
| Zebrafish | SRGMRREITFTISQGVILNAYVTRQIGSITQAVYITNRIKWKIEEFLSREYVILNAYVITLSTITLLELQVITFRDEGSELFRKQCNINNRKTSNGEDSEFFSFLG | 438 |
| Human | IFVLRDINFRIFERQQLAVVGSFAGKSLINLVMEGEPSSGRIHSGRISFGSGESWIMRGTIRLNLFGVSYDEYRQGVKACQLEELAALEKWKTFMADGGGLN | 547 |
| Zebrafish | IFVLRDINFRIFERQQLAVVGSAGSGRSLINLVMEGEPSSGRIHSGRISFGSGESWIMRGTIRLNLFGVSYDEYRQGVKACQLEELAALEKWKTFMADGGGLN | 548 |
| Human | LSGGQARISLARAVVMDADLYLIDSEGYLIVLKEKTEESQCKIMAKIRLIVTSEHLEKADKILIRGSGSYFYGLTEIQLNLDPFSSVINGCDSEIQAER | 657 |
| Zebrafish | LSGGQARVNLARAVVMDADLYLIDSEHTLILTEKTEIDRQCKIMAKIRLIVTSEHLEKADKILIRGSGSYFYGLTEIQLNLDPFSSVINGCDSEIQAER | 658 |
| Human | RSLITETLHRSLEGDFVSWTETKQSERQSG...EFGRRKNSLNNINSINWSEIVKTIPLQMNGLDEDEPLHRLSIVDSQGEAIPRISLISLTPILQAR | 764 |
| Zebrafish | RSLITETLHRSVDESQMQPERSAFRQVFRKEMYIDRRAVWVNEGVWRASTLQVE.....EEVVRTLPIRKSILVNEGLVDESFMGSSVYHNRVVMAGQ | 762 |
| Human | RRCQSVNIMHSVNCQNIQRITIASLKVSLPQCANITPLDINSRISQFGLIISEEINPEDLKCFEDMESEPA...VYNNINRQVIVKSLIPLVWQVTF | 870 |
| Zebrafish | RRCQSVLARNNAQCQRREPLQSSFRRLISVMESEASELDIYRRLSDS...YMTGILPEENIEQCTEIDEDETFETQNNIVYRQVSNKSLVYLIFLIFA | 870 |
| Human | LAVVPSLVVILVGL.....NTLQIGNSTFRNNSVAVIITSSSYVYVYVGVADTLAMGFFRGLFVHTITVSKLFRKMLSVLQAFMSLVNTVQAG | 970 |
| Zebrafish | AVLQVAGVITITDELWREHQSEENWTRHNSASSGQVAVITVITSSYVILYVVAISELAMGFFRGLFVHTITVSKLFRKMLSVLQAFMSLVNTVQAG | 980 |
| Human | GLNRSKQDAILDDLPDITFDSIQULLIIVGADAVAVLQVYIVVIVAVIMLRVYFIQSQQLKQLESERSPTEHUVISLKGWLRARERQCYEFLFHK | 1080 |
| Zebrafish | RVANRTRQDATTDDLPDMLFEDVYQVWVYVGLVWVSIIVFVITLQATELAIITVWRFYELRISQQLKQLETARSPISHLVLSLKGWLRARERQCYEFLFHK | 1090 |
| Human | ALNHTANWFLYSLTLRWFQMIEMIEVDFEAVTFSILITGEGEGRVGLILAMVNSLQWVNSSTVVSIMRSVSRVFRFIMETGRPTKSTPYKNGLSKY | 1190 |
| Zebrafish | TANHTANWFLYSLTLRWFEDRADIIVDFEAVTFSILITGEGEGRVGLILAMVNSLQWVNSSTVVSIMRSVSRVFRFIMETGRPTKSTPYKNGLSKY | 1193 |
| Human | LVYENSHVRKDDINSGEQNIRLIRKRYTEGVAHIDENISFSISPGQRVGLGRTGSGKSHLSLFRILNTEGETIDGVSDSITLQWRKAFGVLPCKVFTSCTF | 1300 |
| Zebrafish | LVIENVDQQLSSNHRGCIENRLLVRYTEGVAHIDENISFSISPGQRVGLGRTGSGKSHLSLFRILNTEGETIDGVSDSITLQWRKAFGVLPCKVFTSCTF | 1303 |
| Human | RNNLDEVEQKSTQDINWVADEVGIRSVIEQFHEKLDVYIVGGVLSHGKQVCLARSVLSGARILLDPEPSAHLDPVYQIIRRTMCAEALCVIICERIRDAMLEG | 1410 |
| Zebrafish | RNNLDEVEGCHSEBEINWVADEVGIRSVIEQFHEKLDVYIVGGVLSHGKQVCLARSVLSGARILLDPEPSAHLDPVYQIIRRTMCAEALCVIICERIRDAMLEG | 1413 |
| Human | QDFVIEENVRQVDSIQKLLNERSLFRQAISESLVMLFERNSSKCKSKPQIA...AHEEIDEVQDTRL | 1480 |
| Zebrafish | QDFVMMDRGQVRYVDSIQKLLNERSHLRQAISEAPRMLFERNSSMRTQCKLSSVIQICEPADNIDQDTRL | 1487 |

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| | | |
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| Human | ALKEEIEEEVQDTRL | 1480 |
| Zebrafish | TLQEEAEDNIQDTRL | 1487 |

PDZ-binding domain

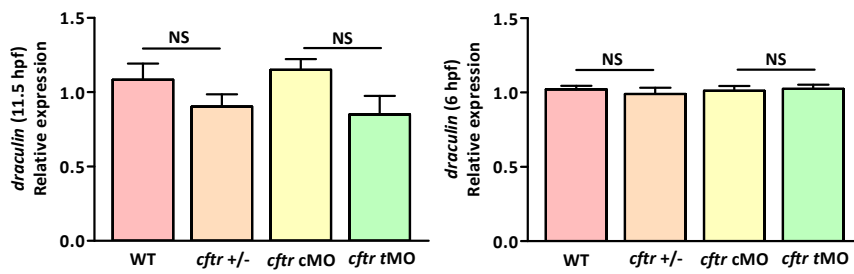
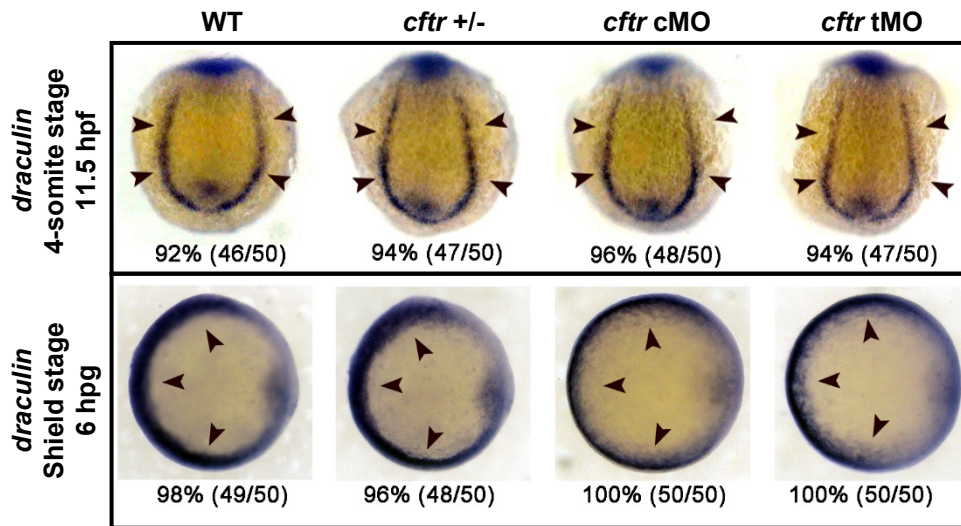


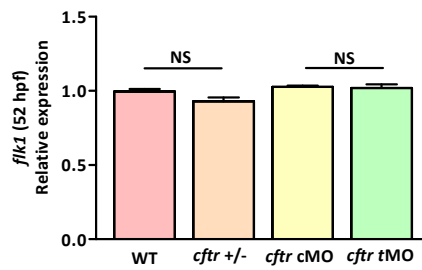
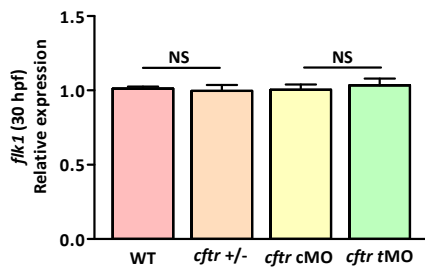
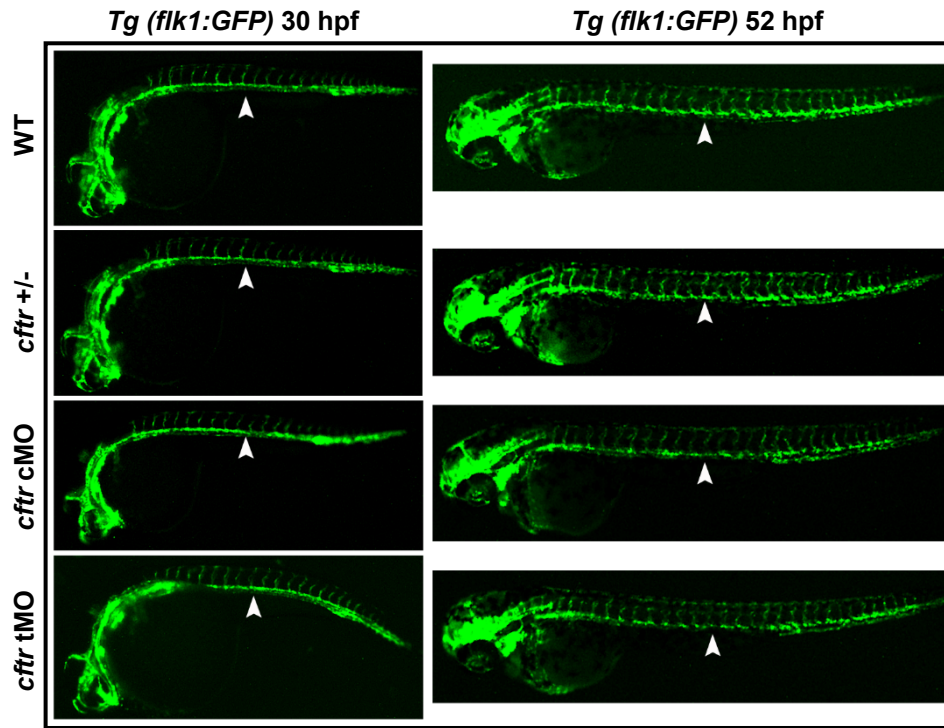
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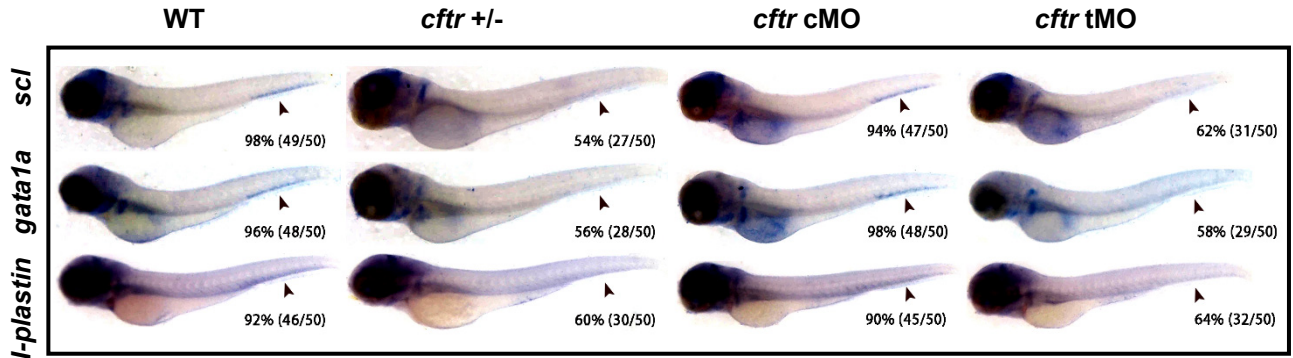
| | |
|--------------------|---|
| <i>cftr</i> | CCCATTTTATATGGATATCACCACTGCAATGCATCCTGTG |
| <i>cftr mutant</i> | CCCATTTTATATGGATATC...CACTGCAATGCATCCTGTG |

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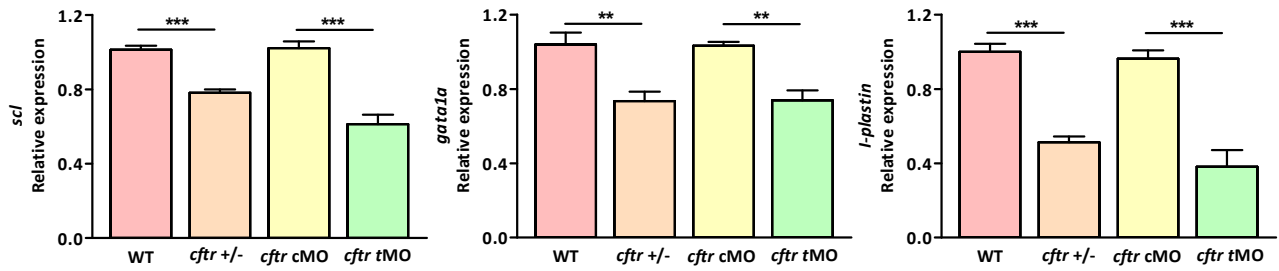
| | | |
|--------------------|-----|--|
| Cftr | 181 | LVSLMSANLGKFDQSLGMAHFIWISPLQCILCTGLIWELIDVNSFCALAAISLLGVLQAF |
| | |:..:.. |
| Cftr mutant | 181 | LVSLMSANLGKFDQSLGMAHFIWISTAMHVPYRAYLGH |

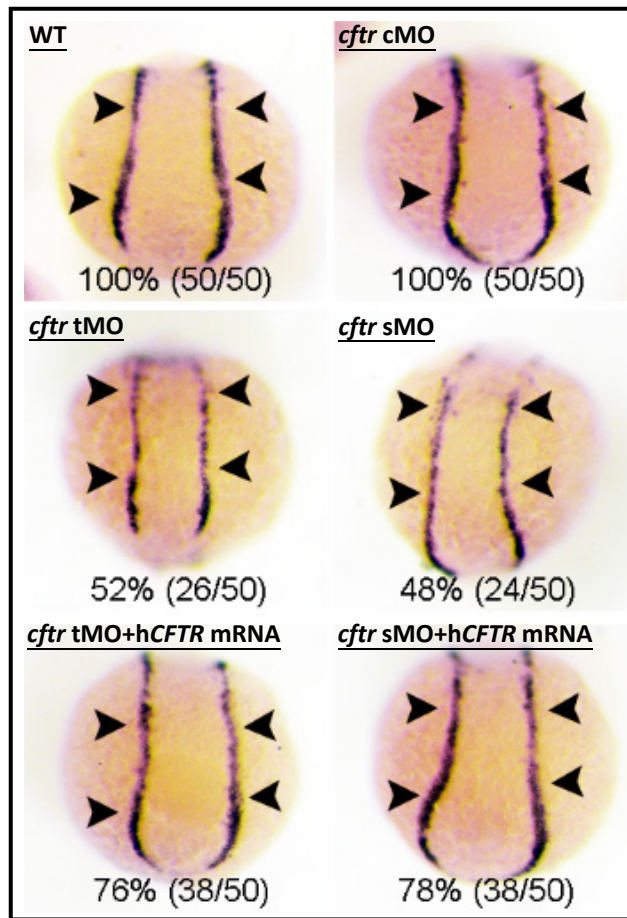




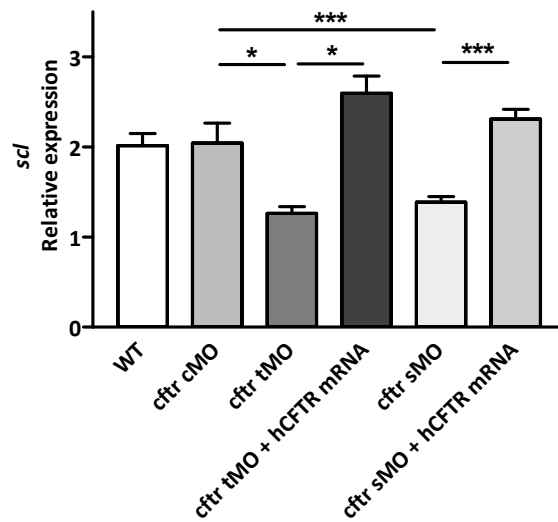


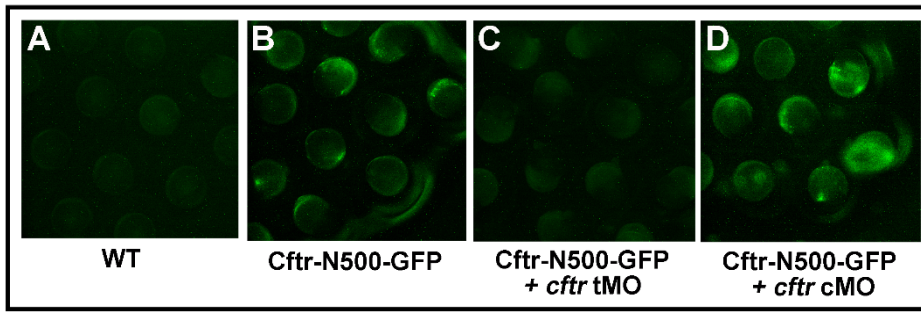
All embryos shown at 3 dpf stage





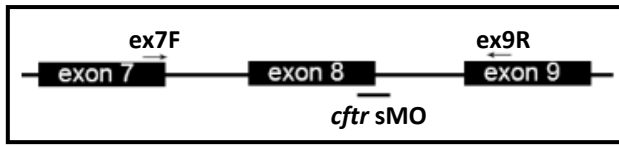
All embryos shown at 8-somite stage (13 hpf)



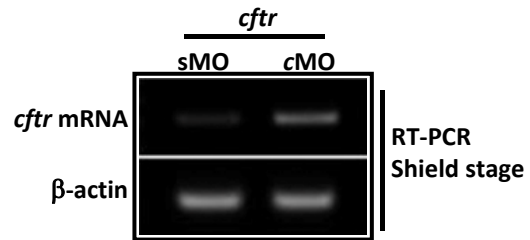


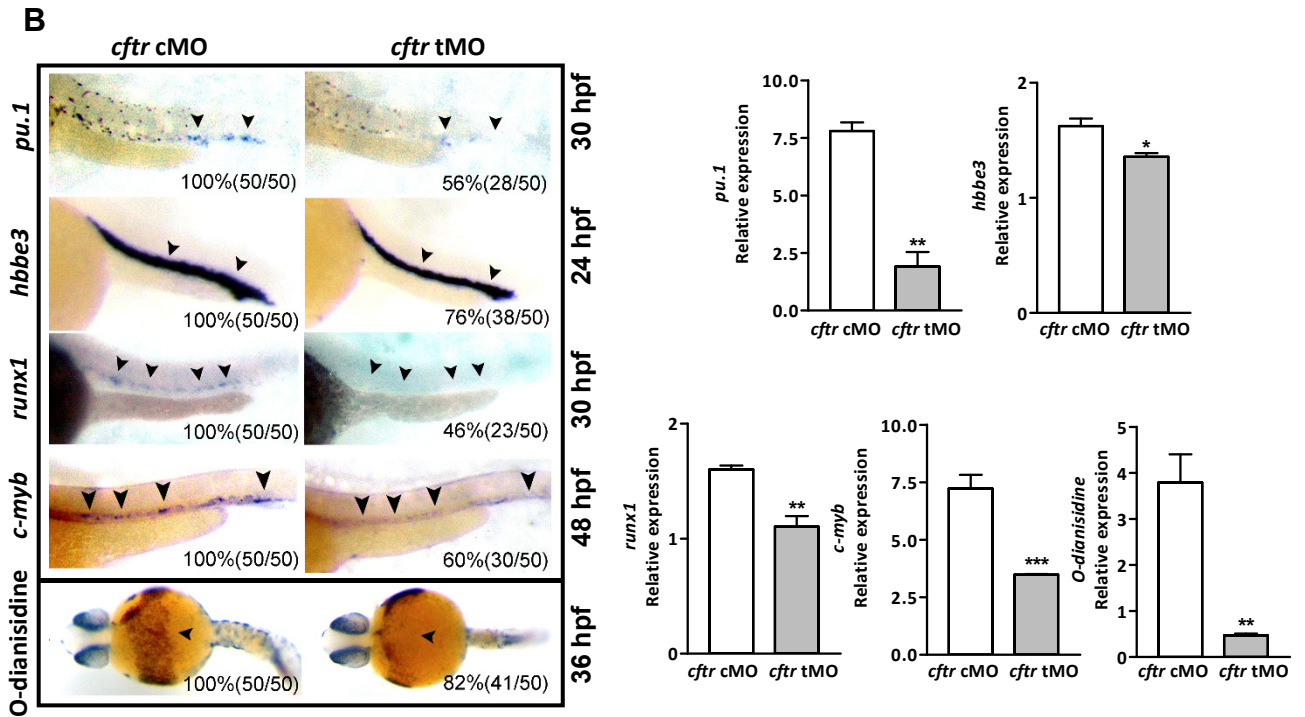
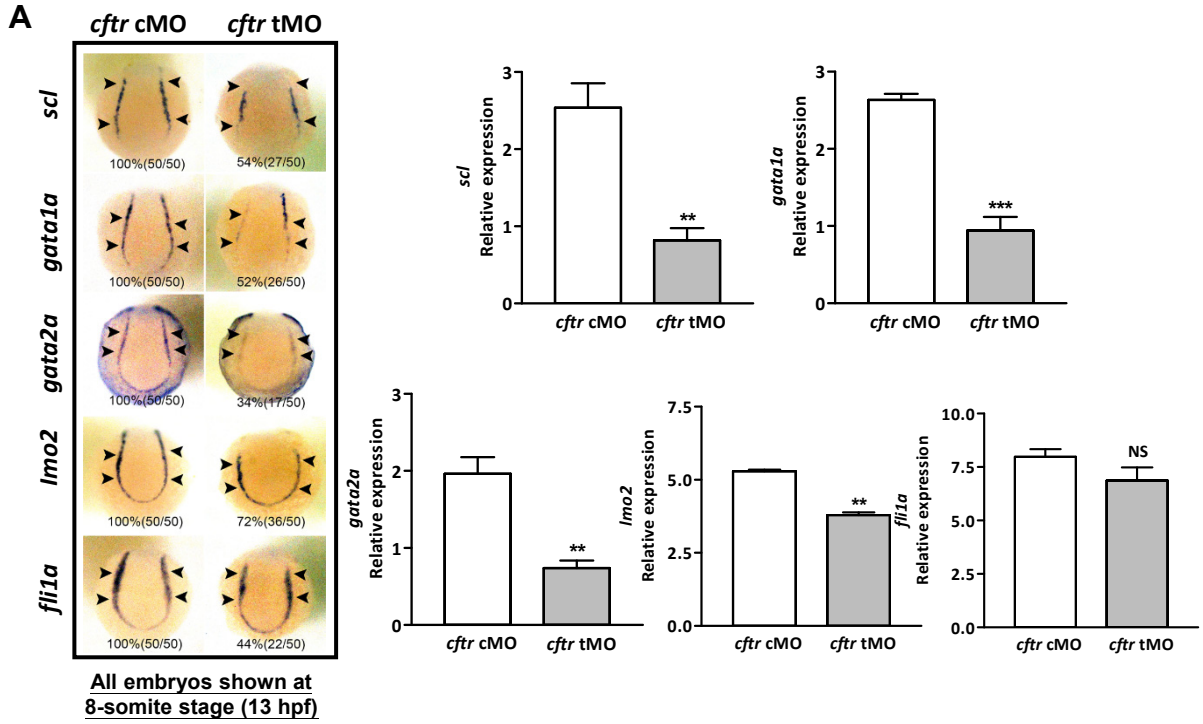
All embryos shown at 70%-epiboly stage (7.5 hpf)

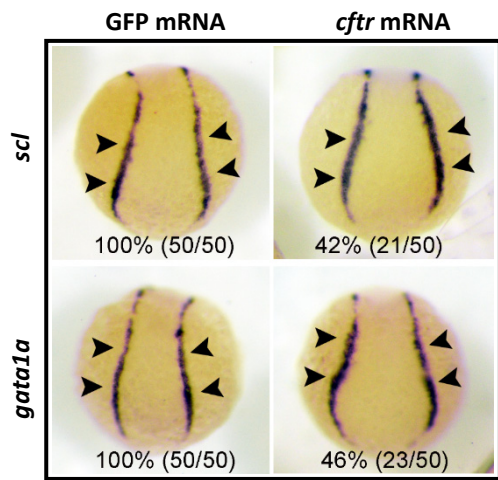
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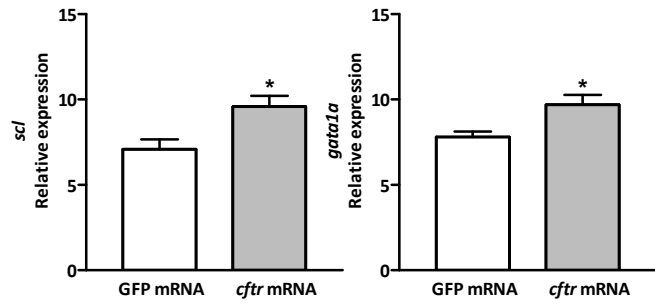
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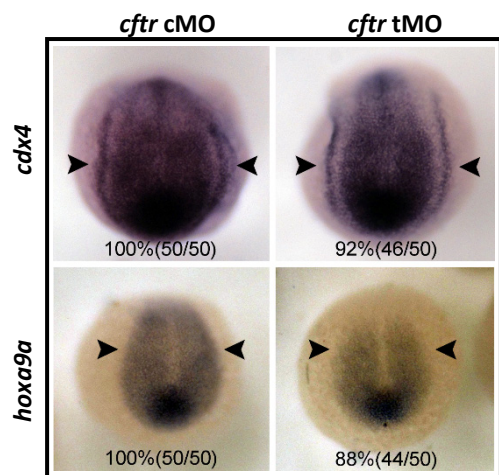




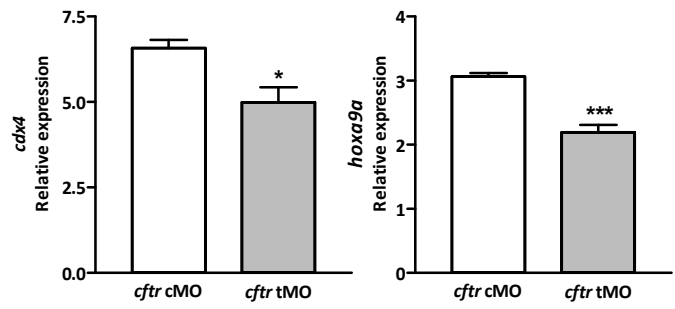


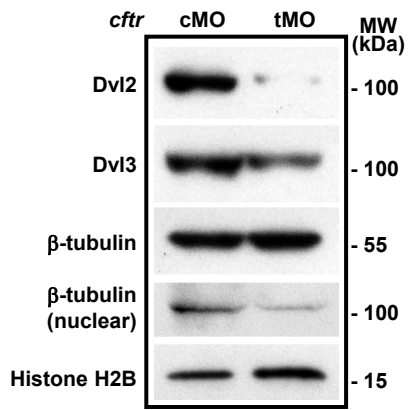
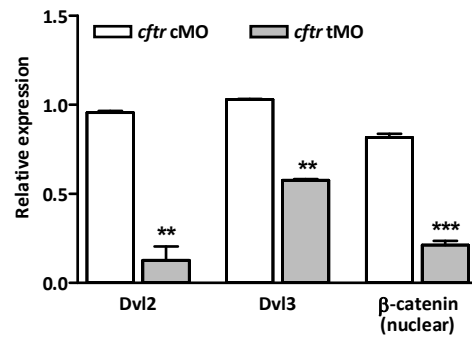
All embryos shown at 8-somite stage (13 hpf)

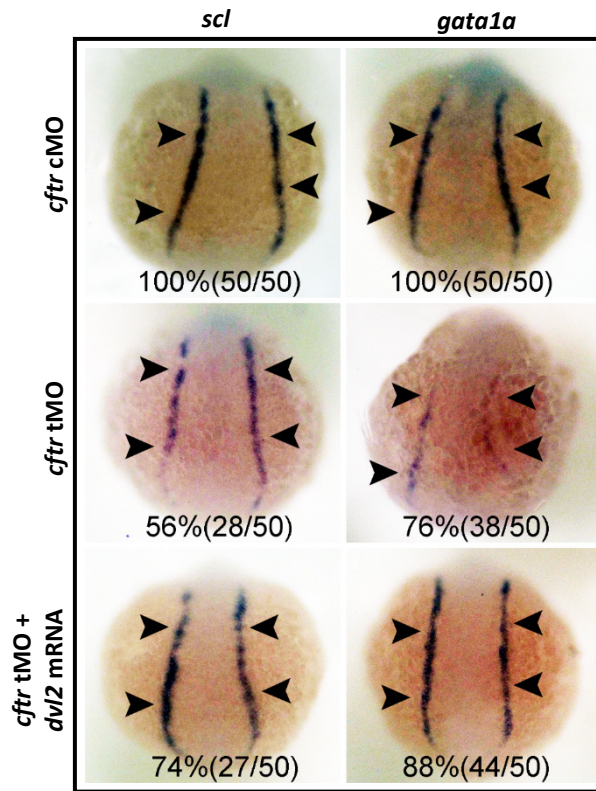




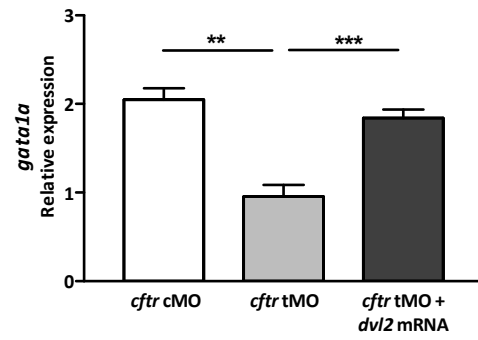
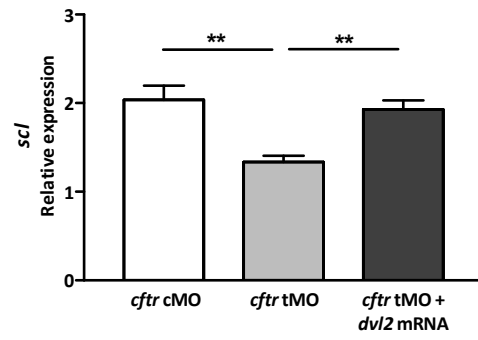
All embryos shown at 8-somite stage (13 hpf)

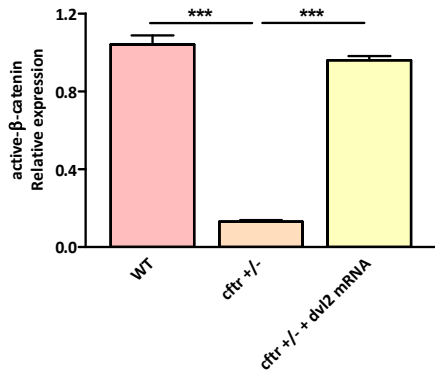
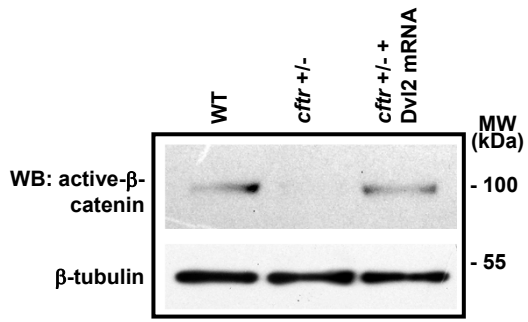
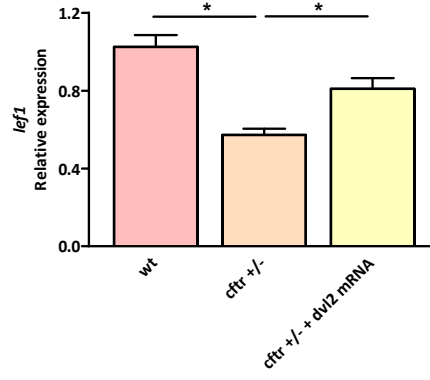
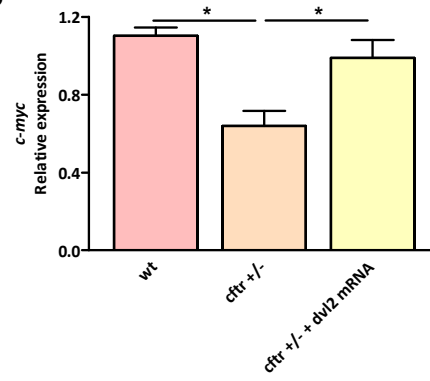


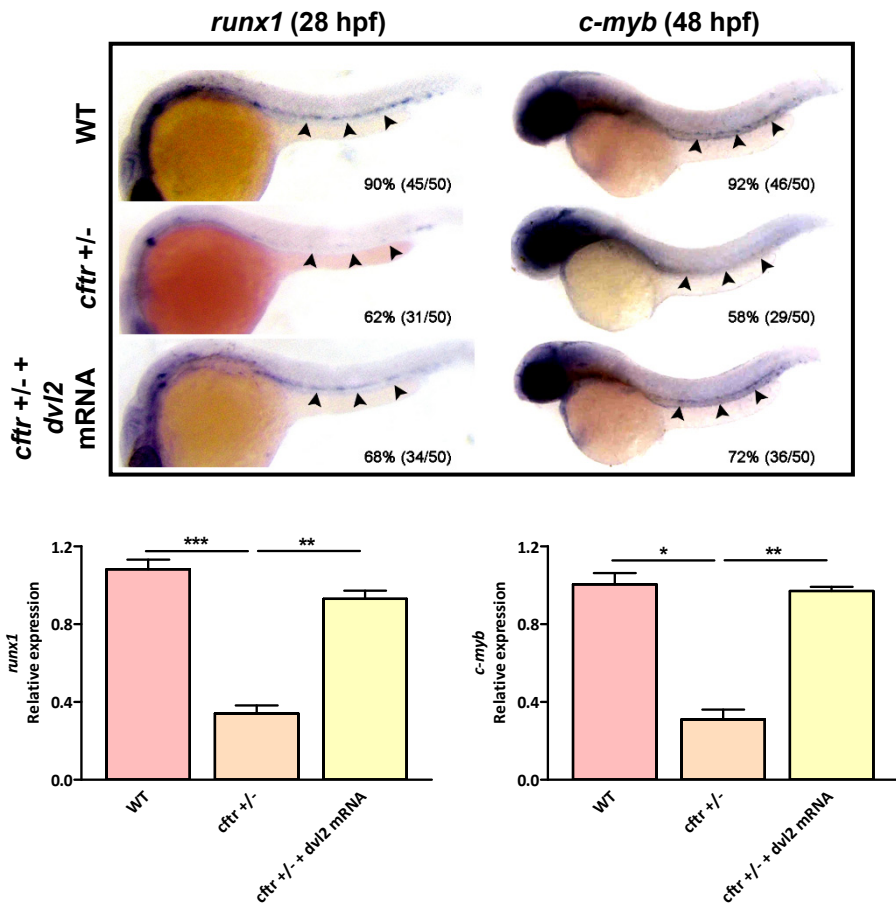
A**B**

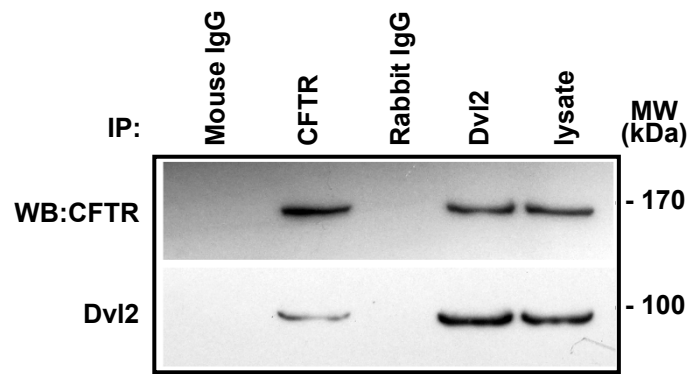


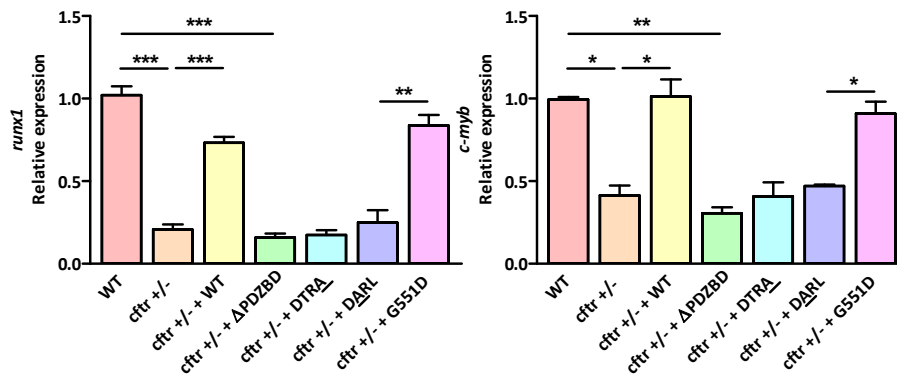
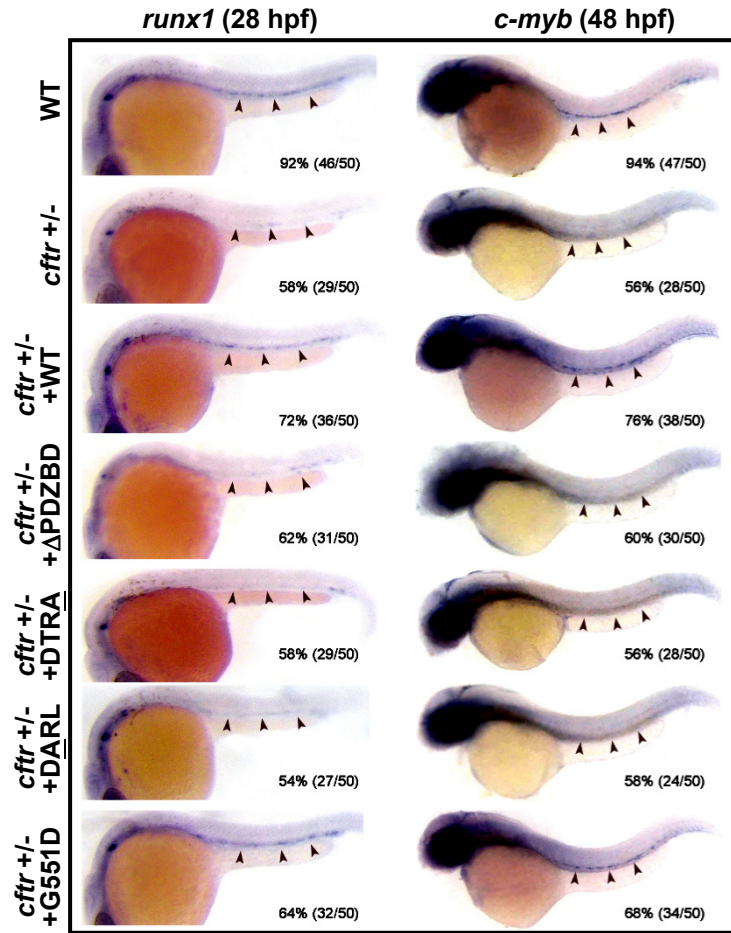
All embryos shown at 8-somite stage (13 hpf)

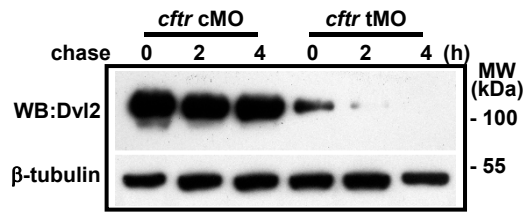


A**B**







A**B**