

## Supplemental information 2 - CRISPR zebrafish guide information

### Pcyt2 03 - Exon 3 Guide Design

CAGTTACGCCAGGCCAAGGCGATGGGAGAT **TATCTGGTTCGTAGGAGTTCA** CACAGACG **gtaagcttcacacttcatg** tttcttcact  
ataatgctgtaataatatgtaatgagggcattgtttttcaccttcag [AGGAAATAGCCAAGCACAAGGGTCTCCAGTCTTCACACA  
GGCAGAGCGTTATAAAATGATACGGGCCATCAA\*GTGGGTGGATGAGATCGTGGAAGGGGCTCCGTATGTTACTACGCTGGAGACGC  
TGGACAAGTACAACTGCGATTTCTGCGTGCACGGAG] gtaggagatcc **gttacacgctgcatatca** **gtagccgtctgtaactctgtg** ag  
ctcagtcggcctagggtttgaactgcaaggtcggttggttgaattccaggaaaggcaagtactgataataatgtgcctcttgagtg  
aaggcaagtctctgctgccaatgcactgcactaatgttaacgtcatatccttaaccctttatagggcactcggtggagtggttactg  
gggttatgagaagact

#### Primer Pair #1 (Pink)

OLIGO	start	len	tm	gc%	any_th	3'_th	hairpin	seq
LEFT PRIMER	1	19	51.52	42.11	0.00	0.00	0.00	gtaagcttcacacttcatg
RIGHT PRIMER	286	20	55.05	45.00	0.00	0.00	0.00	tacagagttacagacggcta

SEQUENCE SIZE: 477  
INCLUDED REGION SIZE: 477

PRODUCT SIZE: 286, PAIR ANY\_TH COMPL: 0.00, PAIR 3'\_TH COMPL: 0.00

#### Primer Pair #2 (Yellow)

OLIGO	start	len	tm	gc%	any_th	3'_th	hairpin	seq
LEFT PRIMER	31	20	54.71	45.00	0.00	0.00	0.00	TATCTGGTTCGTAGGAGTTCA
RIGHT PRIMER	323	18	52.51	44.44	0.00	0.00	0.00	tgatattgcagcgtgtaac

PRODUCT SIZE: 293, PAIR ANY\_TH COMPL: 0.00, PAIR 3'\_TH COMPL: 0.00

#### Guide Details

Guide: **GATACGGGCCATCAAGTGGGTGG**

Direction: Forwards

Restriction Enzyme (x): XCM1

### Pcyt2 13 - Exon 13 Guide Design

CAGCAACAATCTG **ACCACTGACGACATTGTTG** AGAGAATCATTGAGAACA **gtttgtaggaaaaatacagagc** aaaaacgctcacttga  
aatatttatgaaaatatgcaacgattttttttgtactatag [GCTGCAGTTTGAAG **CCAGGAA\*TCAGAAGAAGGAAGCG** AAAGAAA  
TGGCTGTTCTCCAGGCTTTGAAGCGTAAAGATGAATCTGTGAAAAGTGAAGCAGCTCTTGCGAAGAATTAA] **CCAAACCAAGCTAAT**  
**CGG** TAT **TGTCGTAGAACAGAATCACG** CCTGGACTCATTCAATTACATTACAGTAATGAACAGTAAGGTATTTTNAAGANAGAGG  
AGGACAAGGACTTGTTTTAAATC

#### Primer Pair #1 (Pink)

OLIGO	start	len	tm	gc%	any_th	3'_th	hairpin	seq
LEFT PRIMER	51	21	54.97	42.86	0.00	0.00	0.00	
Gttttgtaggaaaaatacagagc								
RIGHT PRIMER	284	20	54.85	45.00	0.00	0.00	0.00	GGTGATTCTGTTCTACGACA

SEQUENCE SIZE: 368  
INCLUDED REGION SIZE: 368

PRODUCT SIZE: 234, PAIR ANY\_TH COMPL: 0.00, PAIR 3'\_TH COMPL: 0.00

#### Primer Pair #2 (Yellow)

OLIGO	start	len	tm	gc%	any_th	3'_th	hairpin	seq
LEFT PRIMER	14	19	55.48	47.37	4.74	0.00	0.00	ACCACTGACGACATTGTTG
RIGHT PRIMER	261	18	53.41	50.00	0.00	0.00	0.00	CCGATTAGCTTGTTTGG

PRODUCT SIZE: 248, PAIR ANY\_TH COMPL: 0.00, PAIR 3'\_TH COMPL: 0.00

#### Guide

GCTGCAGTTTGAAG **CCAGGAA\*TCAGAAGAAGGAAGCG** AAAGAAATGGCTGTTCTCCAGGCTTTGAAGCGTAAAGATGAATCTGTGA  
AAAGTGAAGCAGCTCTTGCGAAGAATTAA  
**CGTTCCTTCTTGATTCTTG**

Direction: Reverse

Restriction Enzyme (x): HpyAV (recognition Site underlined as [...])

**cDNA primers used for zebrafish pcyt2 mRNA expression analysis**

cDNA	Forward Primer	Reverse Primer
EIF1 $\alpha$	CTTCTCAGGCTGACTGTGC	CCGCTAGCATTACCCTCC
PCYT2 (set 1)	ACAGGCAGAGCGTTATAAAA	TTGTTAACAGGAGCATTCTGA
PCYT2 (set 2)	TTTAAGGTGGATCTGGTGTG	CCATTTCCTTCGCTTCCTTC