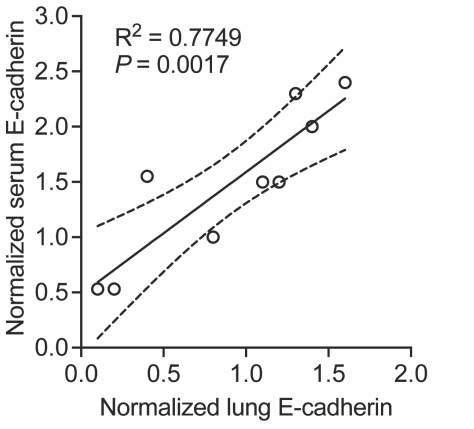
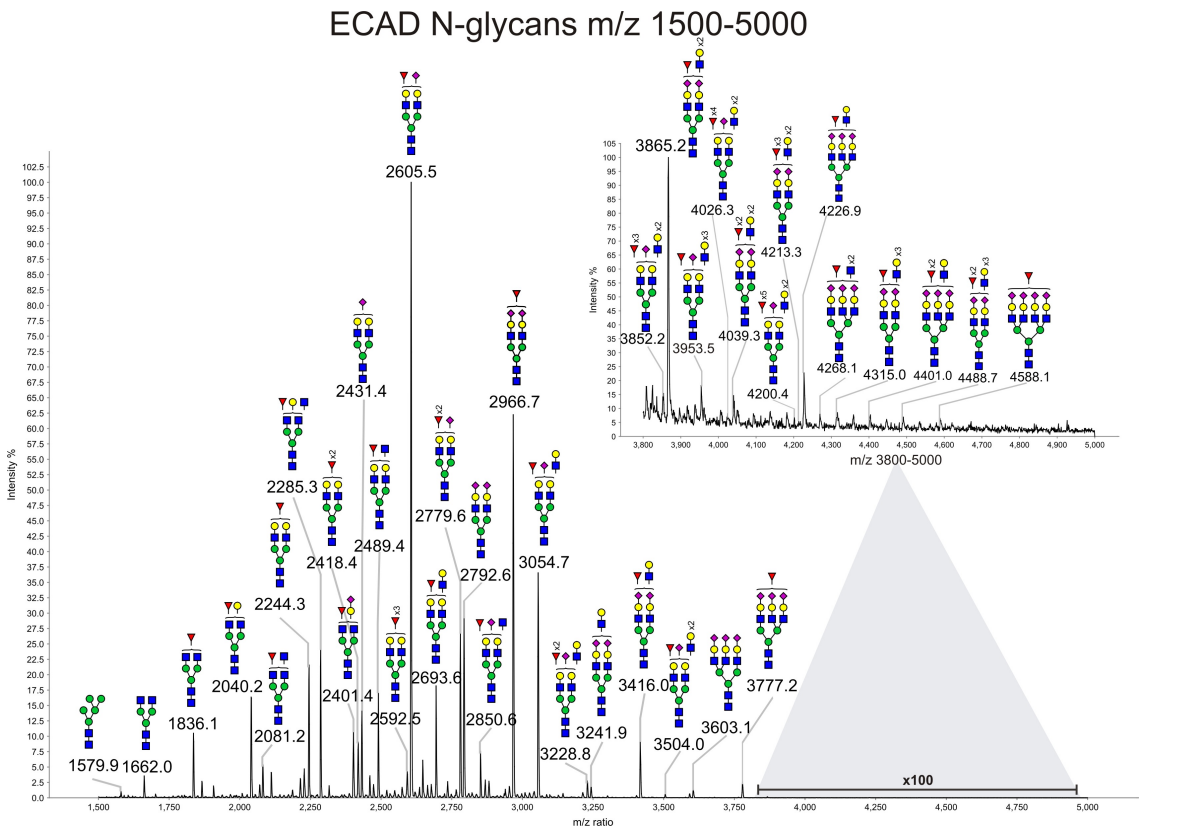
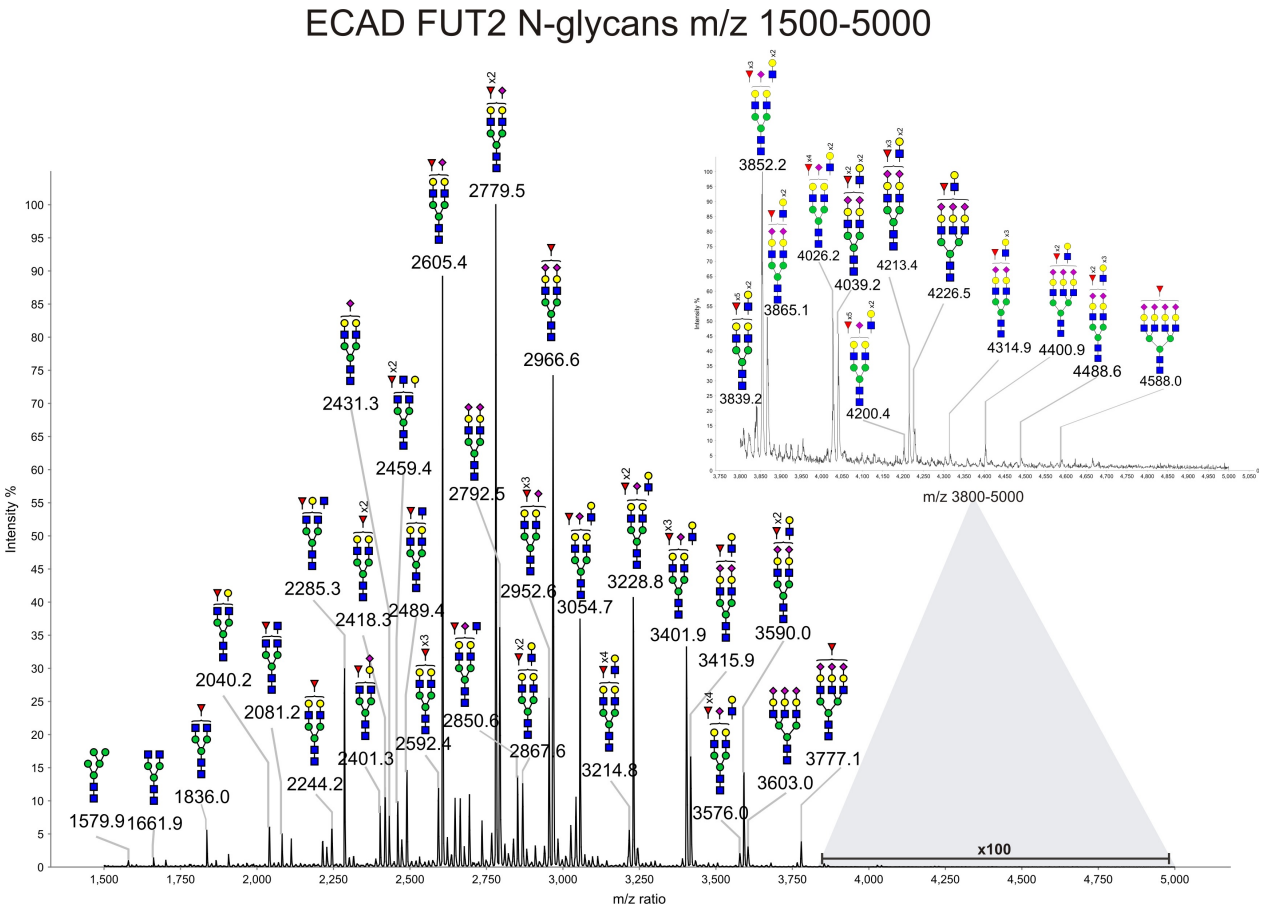
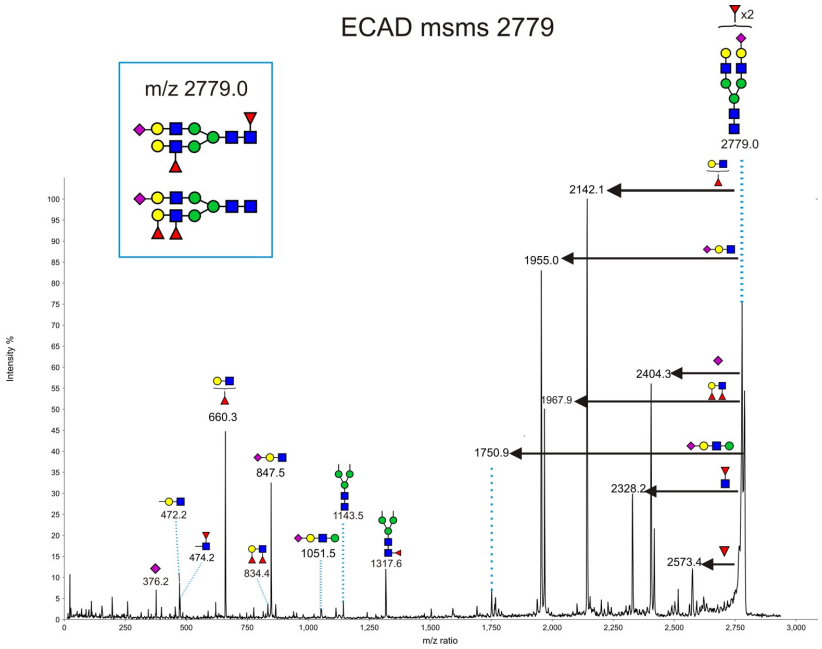


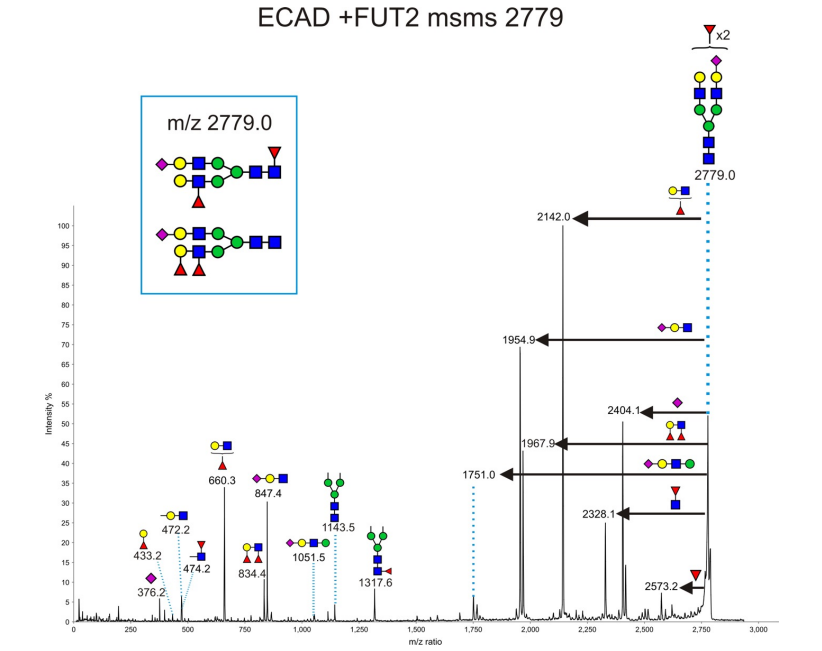
SF1: Serum levels of E-cadherin are highly correlated with lung levels of E-cadherin



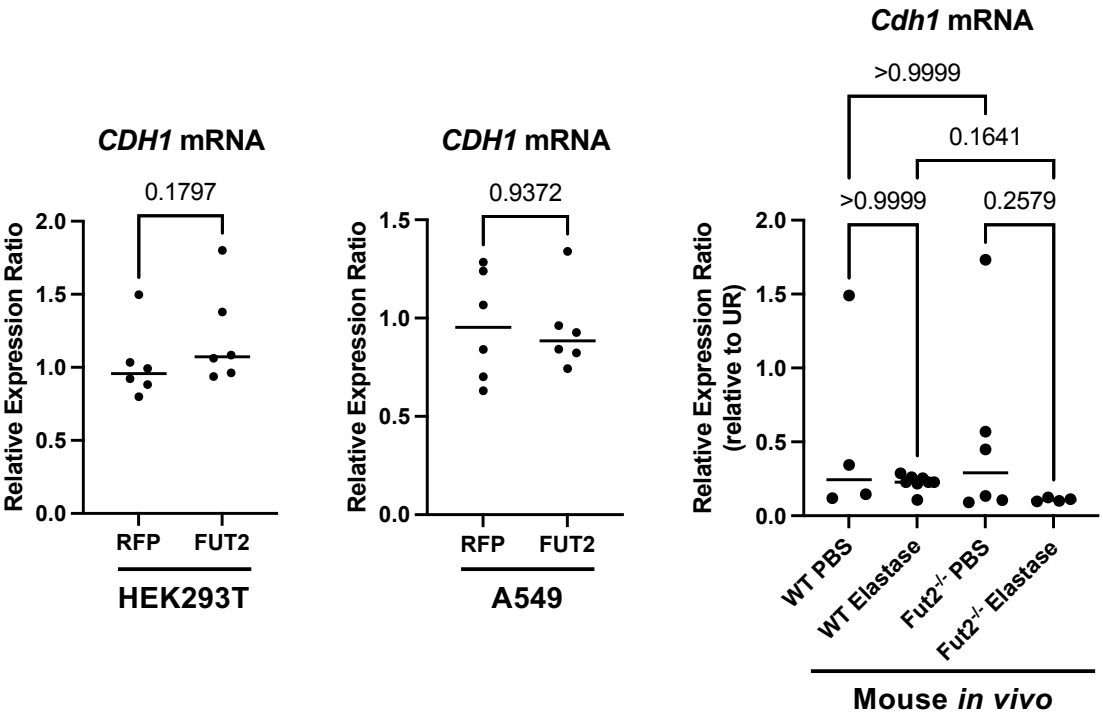


SF2: Glycan profiles of E-cadherin change with FUT2 overexpression



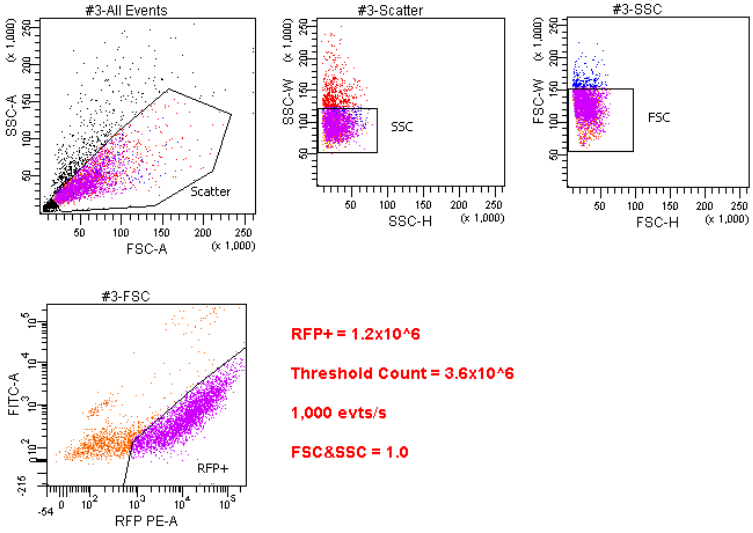


SF2: Glycan profiles of E-cadherin change with FUT2 overexpression



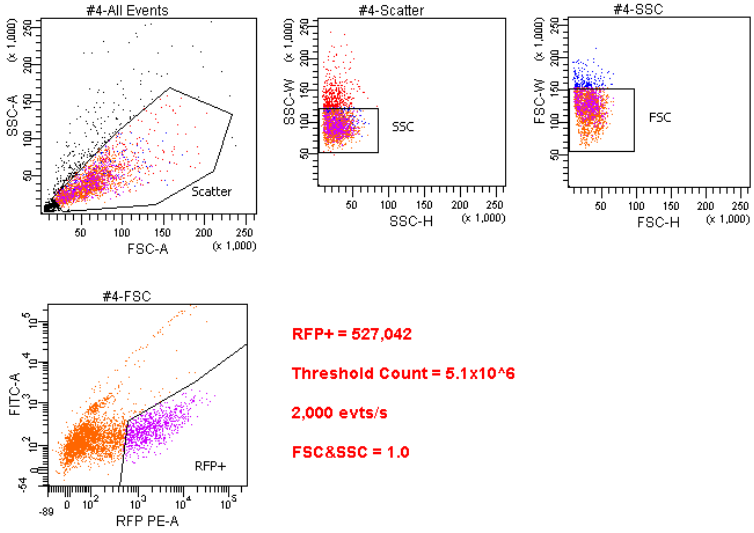
SF3: *CDH1* transcript levels are not dependent on *FUT2* expression.

A



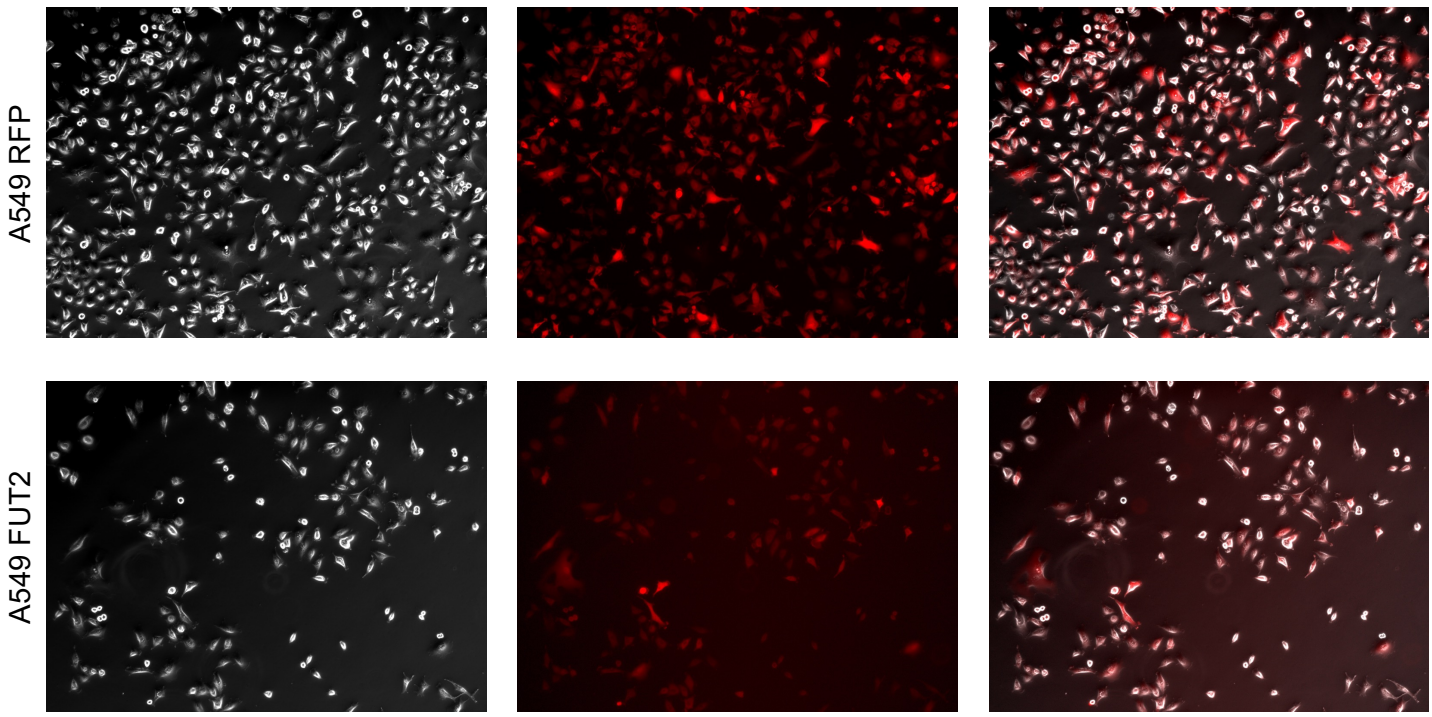
A549 RFP

B

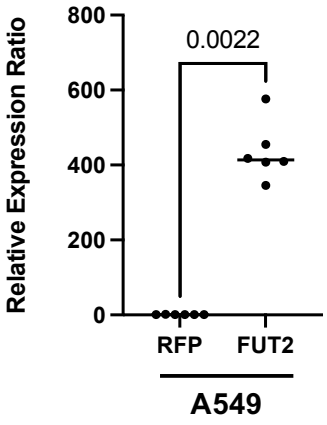


A549 FUT2

C

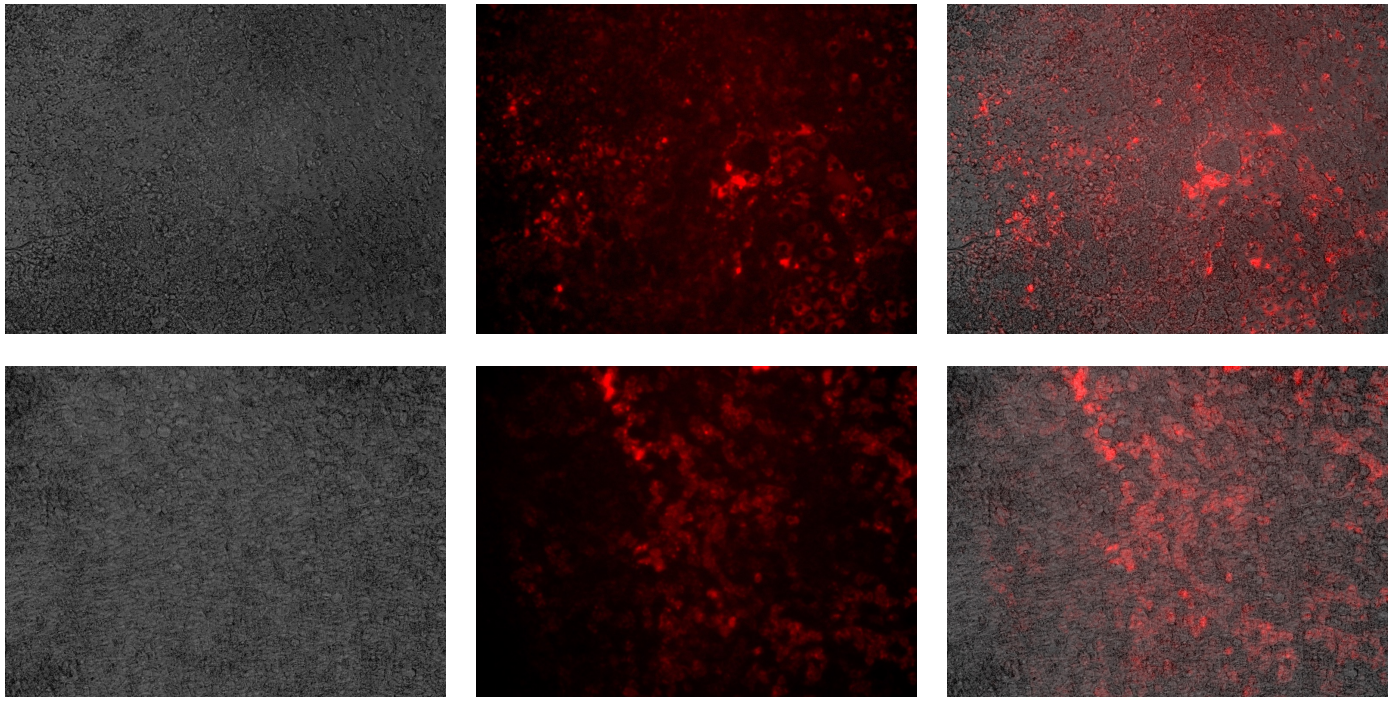


D



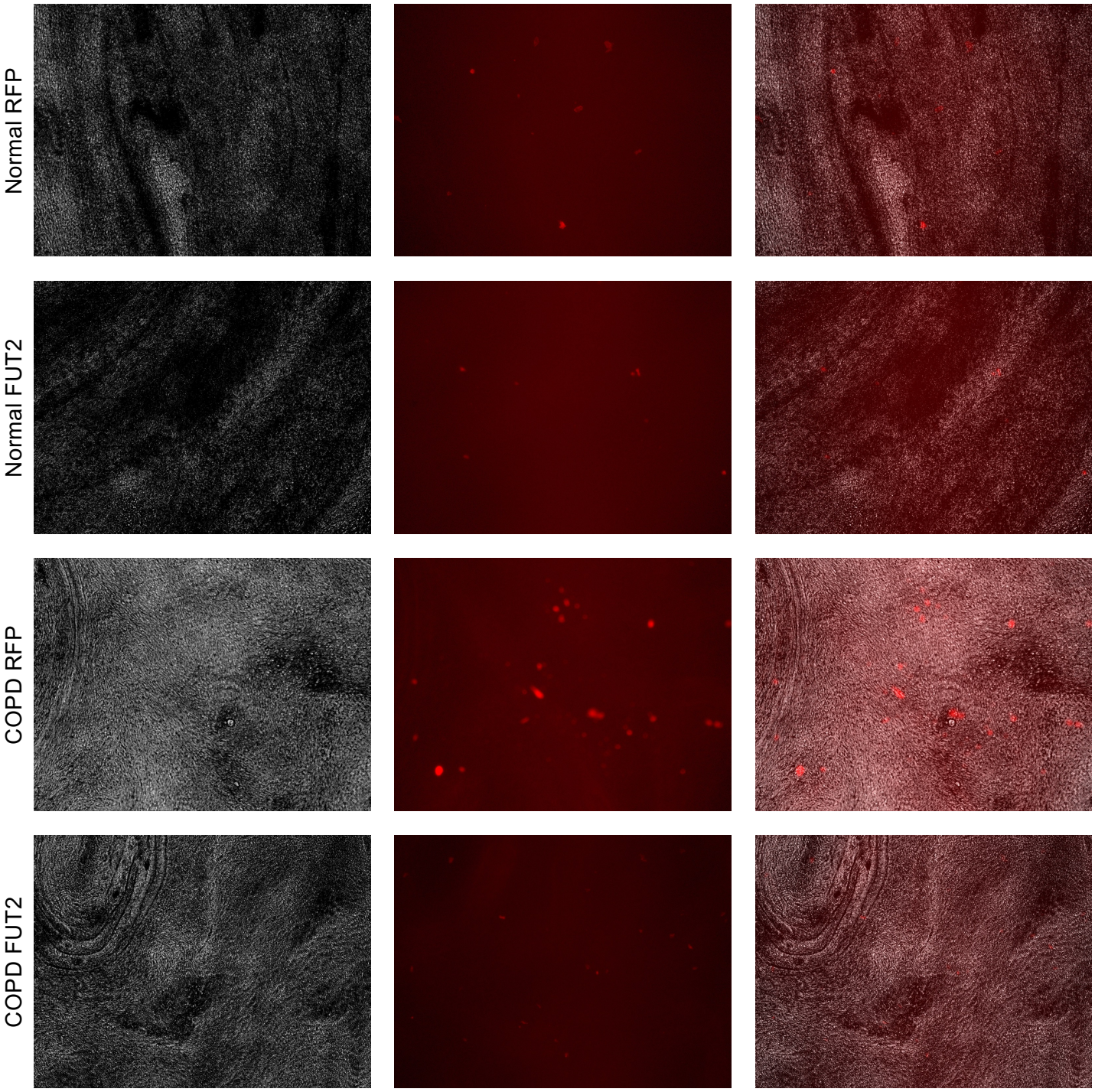
SF4: Transduction efficiency of RFP, FUT2, Fut2, shCTRL, shCDH1.

E

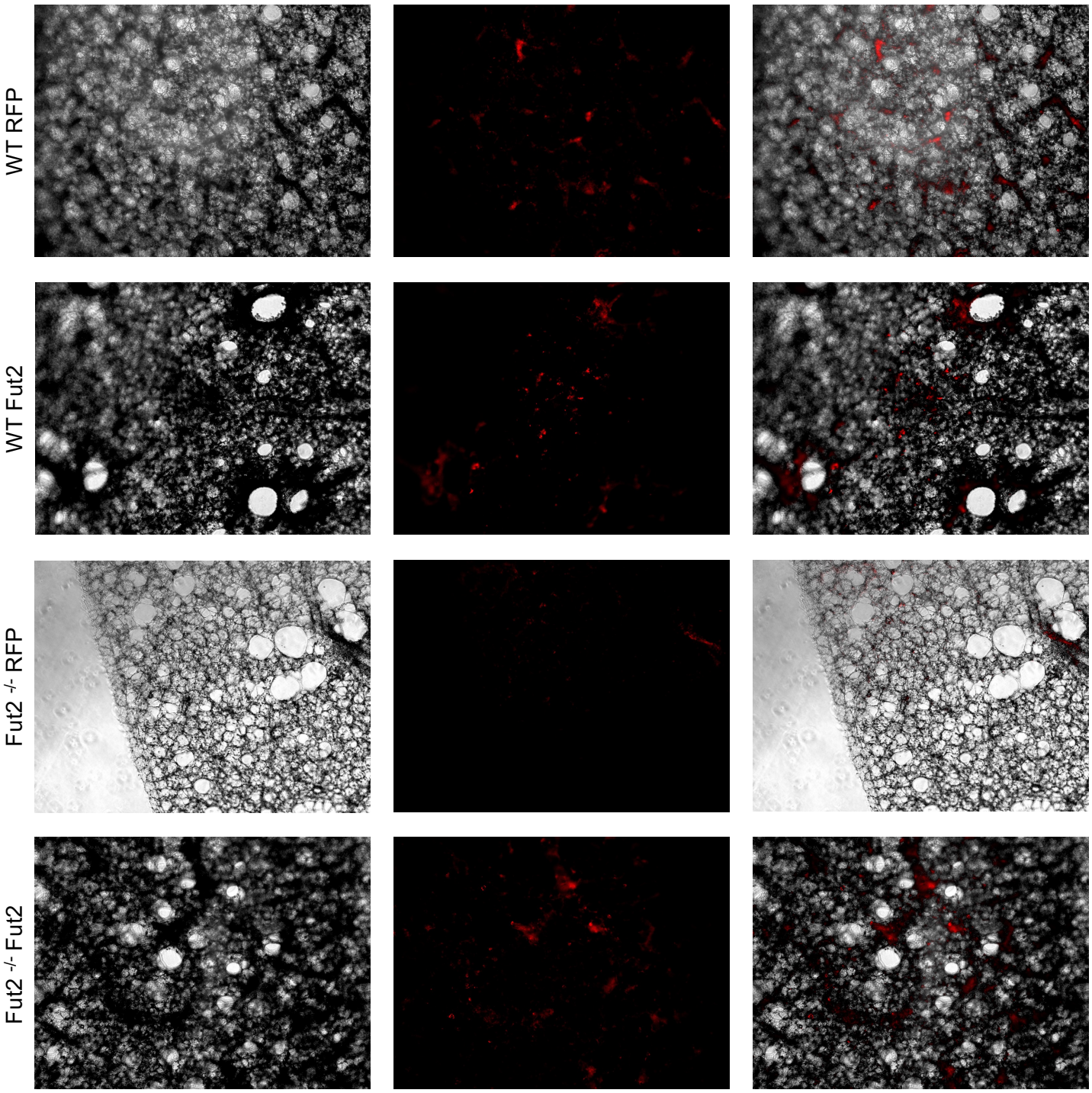


SF4: Transduction efficiency of RFP, FUT2, Fut2, shCTRL, shCDH1.

F

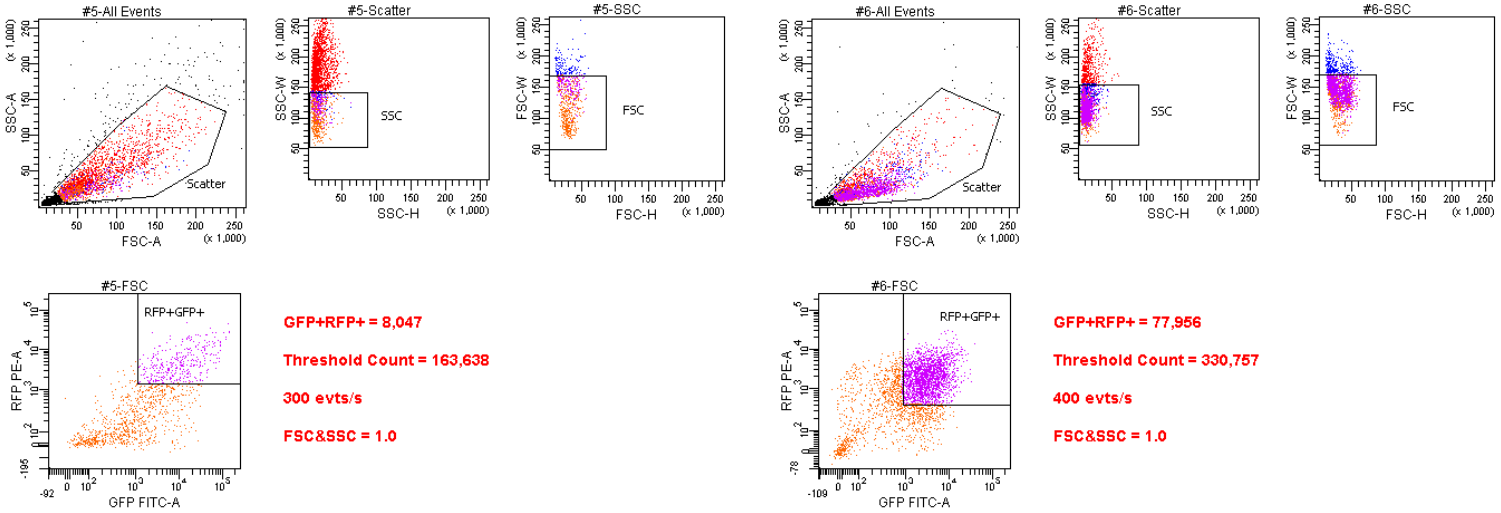


F



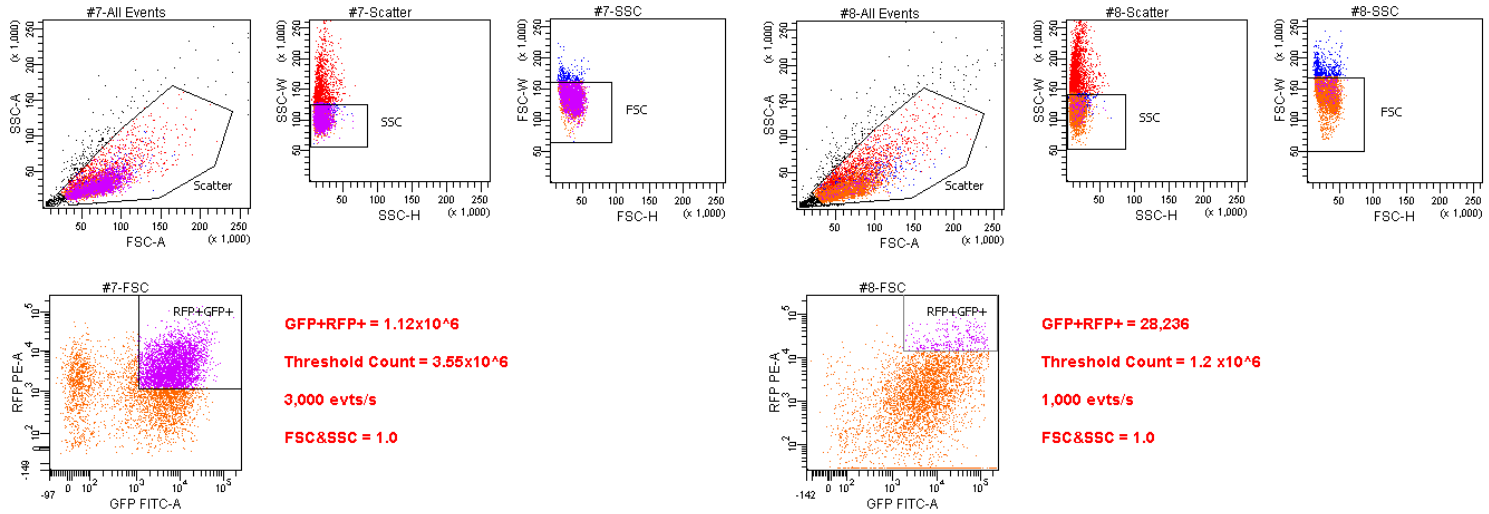
SF4: Transduction efficiency of RFP, FUT2, Fut2, shCTRL, shCDH1.

G



A549 RFP + shCTRL

A549 RFP + shCDH1

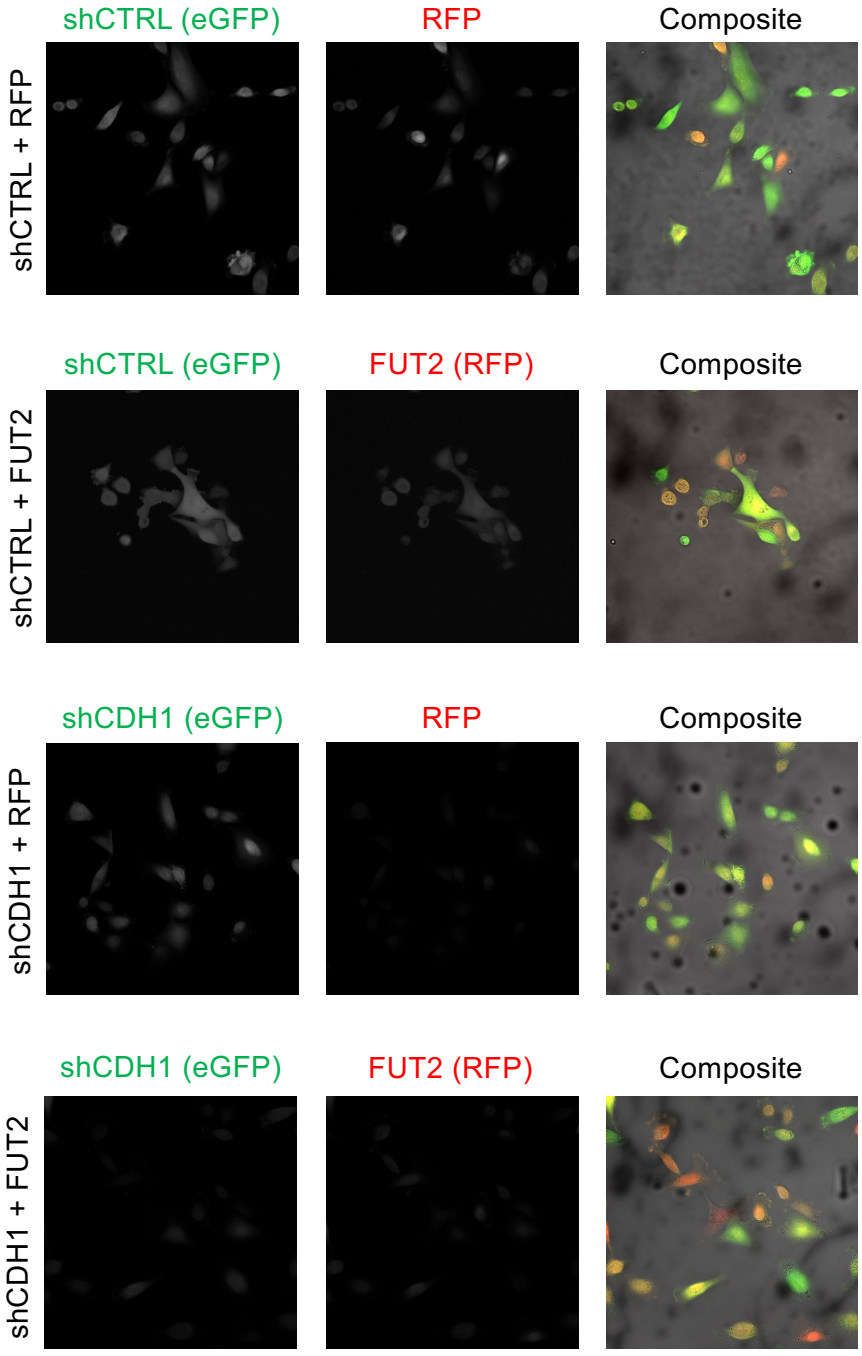


A549 FUT2 + shCTRL

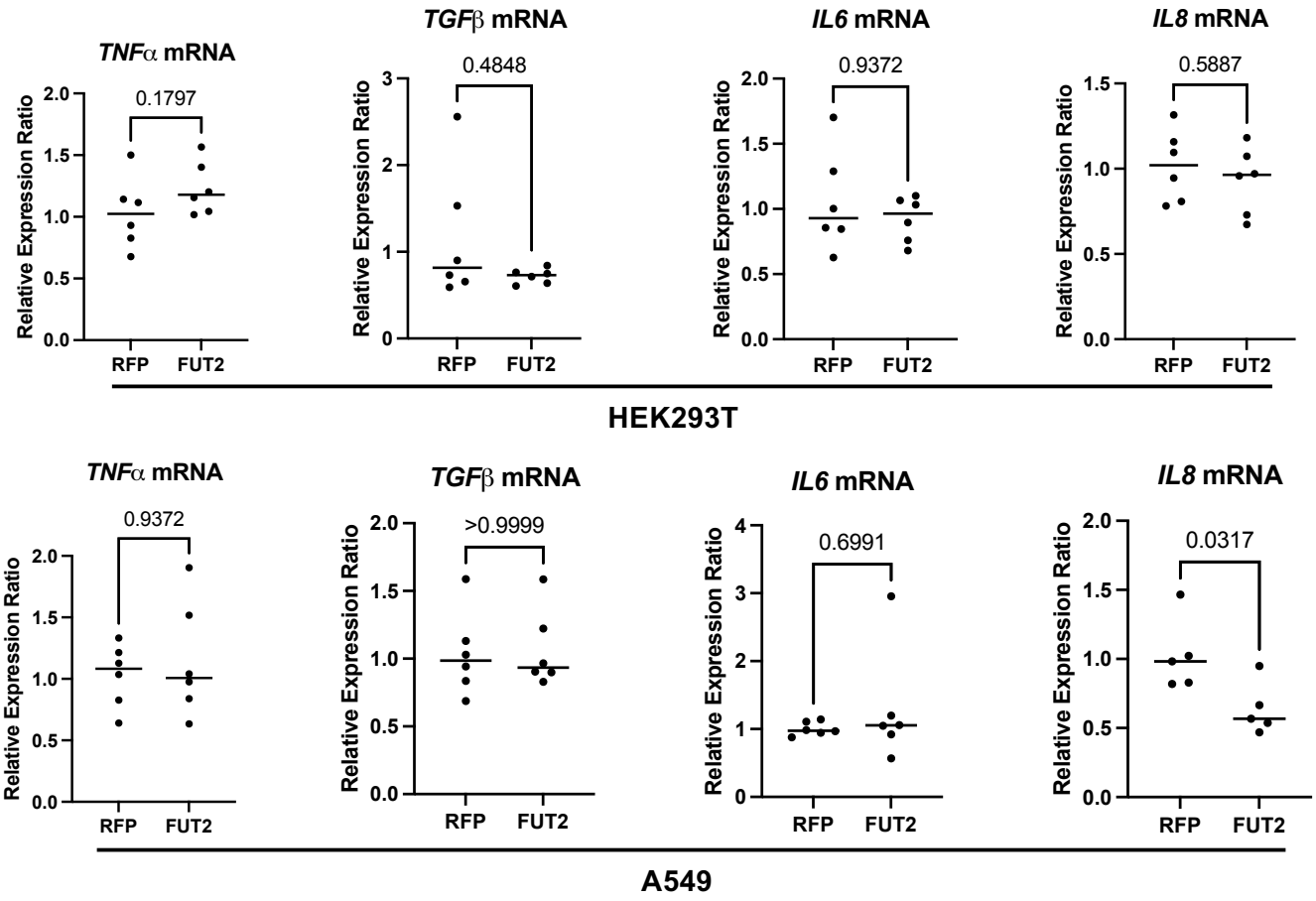
A549 FUT2 + shCDH1

SF4: Transduction efficiency of RFP, FUT2, Fut2, shCTRL, shCDH1.

H



SF4: Transduction efficiency of RFP, FUT2, Fut2, shCTRL, shCDH1.



SF4: Markers of key inflammatory genes are not changed with varying FUT2 expression

Supplementary Table 1: Cohesion measurements of E-cadherin with and without FUT2 dependent fucosylation

E-cadherin without FUT2 fucosylation		
Run	**Adhesive Force (nN)**	**n**
1	63.759 ± 2.8563	96
2	63.428 ± 3.5936	97
3	63.0181 ± 2.9007	101
4	63.4037 ± 2.9181	102
5	63.6881 ± 2.3771	101
E-cadherin with FUT2 fucosylation		
Run	**Adhesive Force (nN)**	**n**
1	79.5199 ± 2.5149	105
2	80.2063 ± 3.5990	121
3	80.2640 ± 2.6532	117
4	79.6411 ± 3.0411	116
5	79.3105 ± 2.0907	107

Supplementary Table 2: Quantitative polymerase chain reaction primers used to determine abundance of mRNA transcripts.

Gene	Direction	Sequence (5' – 3')
Human		
Human *CDH1*	Forward	GCCTCCTGAAAAGAGAGTGGAAG
	Reverse	TGGCAGTGTCTCTCCAAATCCG
Human *KRT5*	Forward	TTGGACCAGTCAACATCTCTGT
	Reverse	CTGCTACCTCCGGCAAGAC
Human *FOXJ1*	Forward	AGATCCCACCTGGCAGAATTCAA
	Reverse	CCGAGGCACTTTGATGAAGC
Human *SCGB1A1*	Forward	TGAAACTCGCTGTCACCCTC
	Reverse	CAGATCTCTGCAGAAGCGGA
Human *MUC5AC*	Forward	GAACTGCCAGTCCTGCCTTT
	Reverse	AGCGCTGTCCATTGTAGGTG
Human *CLDN4*	Forward	ATCGGCAGCAACATTGTCAC
	Reverse	GCGAGTCGTACACCTTGCAC
Human *AGER*	Forward	CACCTTCTCCTGTAGCTTCAGC
	Reverse	AGGAGCTACTGCTCCACCTTCT
Human *SFTPC*	Forward	GTCCTCATCGTCGTGGTGATTG
	Reverse	AGAAGGTGGCAGTGGTAACCAG
Human *FUT2*	Forward	CTACCACCTGAACGACTGGATG
	Reverse	AGGGTGAACTCCTGGAGGATCT
Human *GAPDH*	Forward	GTCTCCTCTGACTTCAACAGCG
	Reverse	ACCACCCTGTTGCTGTAGCCAA
Human *TNFα*	Forward	TGGGATCATTGCCCTGTGAG
	Reverse	GGTGTCTGAAGGAGGGGGTA
Human *TGFβ*	Forward	GTGGAAACCCACAACGAAATC
	Reverse	GAGAGCAACACGGGTTCAGG
Human *IL6*	Forward	CCACCGGGAACGAAAGAGAA
	Reverse	CTTGTTACATGTTTGTGGAGAAGGA
Human *IL8*	Forward	TGGACCCCAAGGAAAACTGG
	Reverse	ATTTGCTTGAAGTTTCACTGGCA
Mouse		
Mouse *Cdh1*	Forward	GGTCATCAGTGTGCTCACCTCT
	Reverse	GCTGTTGTGCTCAAGCCTTCAC
Mouse *Krt5*	Forward	AGATGTTCTTTGATGCGGAGC
	Reverse	TGTCCATGGAAAGGACCACAG
Mouse *Foxj1*	Forward	TCGAGCTGGGGACAGAGAA
	Reverse	CGAATGTGAGGCCTGGCT
Mouse *Scgb1a1*	Forward	TCCCTGAAGCCTTTCAACCC
	Reverse	TTGTTAGGATTTTCTCCGTGAGC
Mouse *Muc5ac*	Forward	TTACTCTACTGACTGCACCAACACA
	Reverse	CCCCATGTACTGTGTACTGCC
Mouse *Cldn4*	Forward	CGAGCCCTTATGGTCATCAGCA
	Reverse	ATGCTTGCCACGATGAACACGG
Mouse *Ager*	Forward	GCCACTGGAATTGTCGATGAGG
	Reverse	GCTGTGAGTTCAGAGGCAGGAT
Mouse *Sftpc*	Forward	GTCCTCGTTGTCGTGGTGATTG
	Reverse	AAGGTAGCGATGGTGTCTGCTC
Mouse *Fut2*	Forward	AGGCGGTTCAAATGTCCTCACC
	Reverse	GCATATTCGCCCATCTGGTTCC
Mouse *Gapdh*	Forward	CATCACTGCCACCCAGAAGACTG
	Reverse	ATGCCAGTGAGCTTCCCGTTCAG

Supplementary Table 3: Primers used to amplify genes with polymerase chain reaction from genomic cDNA.

Gene	Direction	Sequence (5' – 3')
Human *FUT2*	Forward	GTACGATATCATGTACCCATACGATGTTCCAGATTACGCTCTGGTCGTTCAGATGCC
	Reverse	GTACGATATCTTAGTGCTTGAGTAAGGGGGACAGGTCTGC
Mouse *Fut2*	Forward	TATAGATATCATGTACCCATACGATGTTCCAGATTACGCTGCGAGTGCCCAGGTA
	Reverse	AAAAGATATCTTAGTGCTTAAGGAGTG