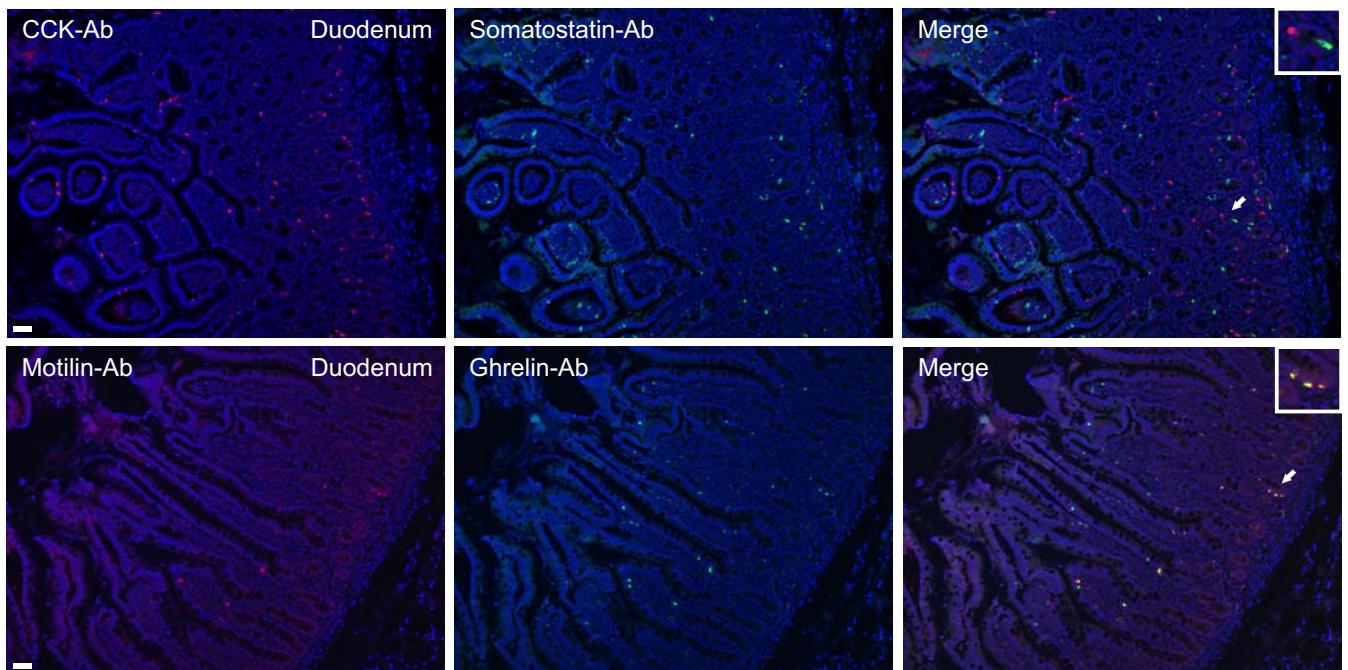


**Fig S1. Immunohistochemical co-localization of selected gut hormones in human small intestine.** *Panel A* - lack of co-localization of CCK (rabbit Ab - red) and somatostatin (Goat antibody - green) in human duodenum. *Panel B* - co-localization of motilin (Rabbit antibody - red) and ghrelin (goat antibody - green) in human duodenum. Hoechst nuclei staining (blue) and bar = 50 um.

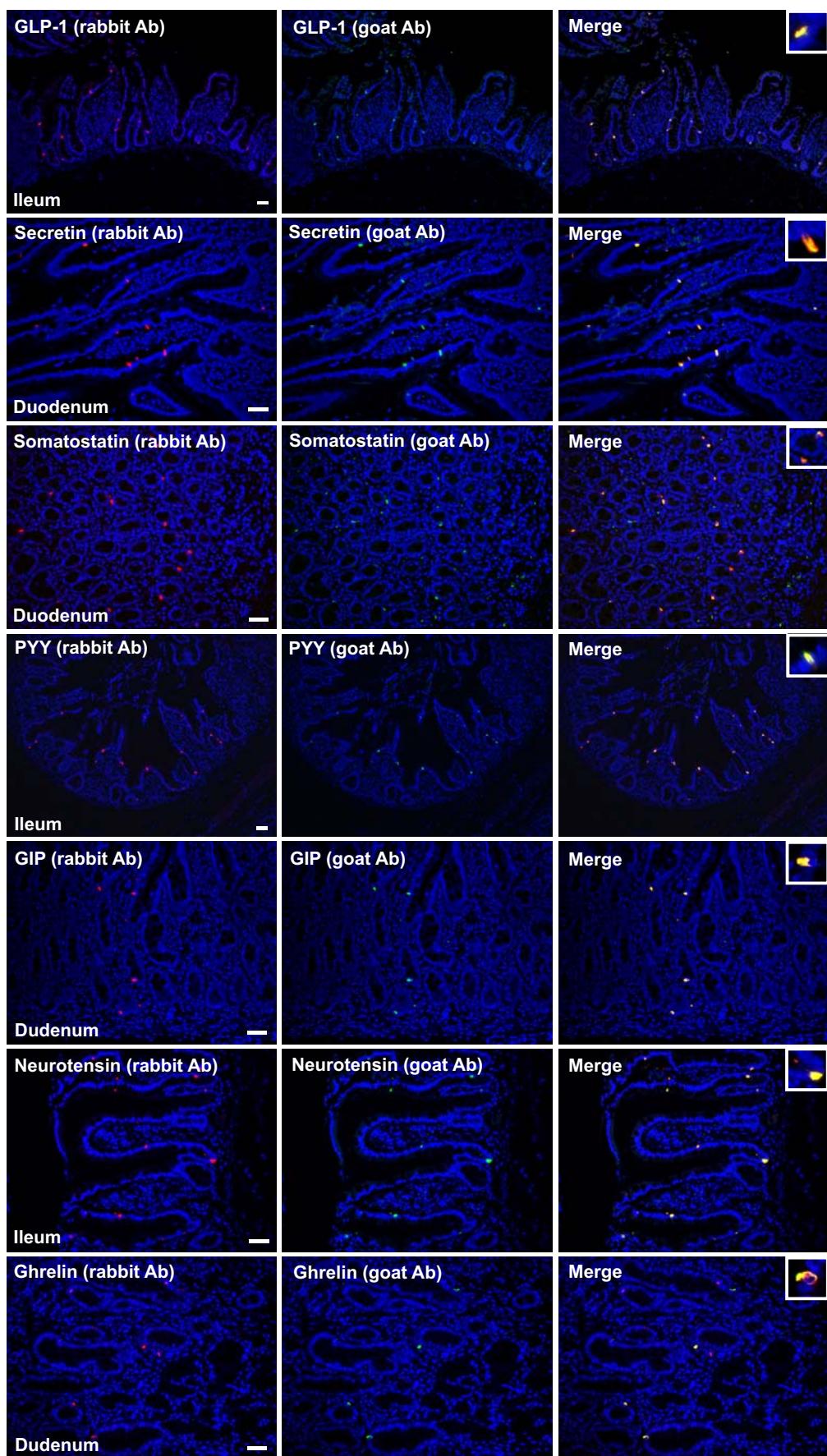
**Fig. S2 Immunohistochemical co-localization of pre validated rabbit derived antibodies with commercial goat derived antibodies.** In homologous combinations there appeared to be an excellent agreement in the staining pattern between the rabbit and goat antibodies. Hoecst nuclei counterstaining. Bar: 50  $\mu$ m

**Fig. S3. Immunohistochemical stain for GLP-1, neurotensin and somatostatin in Gcg-DTR mice distal ileum before and after DT administration.** Upper row: tissue from untreated Gcg-DTR mice. Lower row: tissue from DT treated Gcg-DTR mice 24 hours after injection.

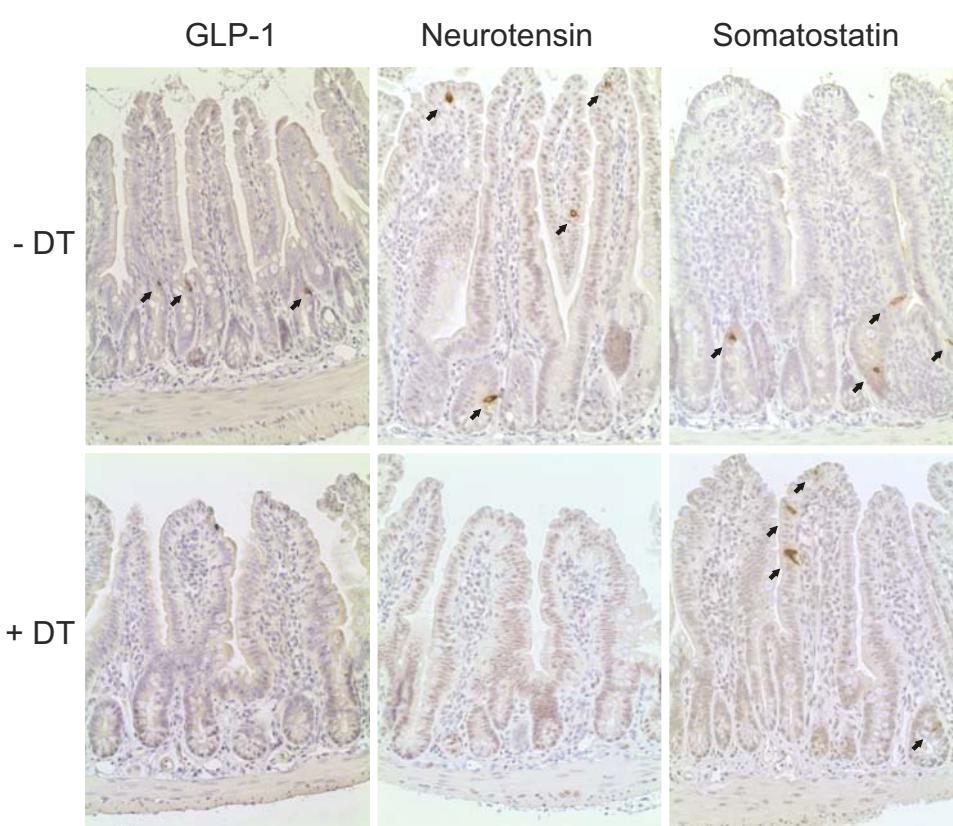
**Fig. S1**



# Fig. S2



**Fig. S3**



**Table S1**

Primary Antibody	Host	Cryo (mouse)	Paraffin (Mouse)	Paraffin (Human)	Code
Anti-CCK	Rabbit	1:6400	1:20000	1:13000	(8007)
Anti-Ghrelin	Rabbit	1:6000			(2243A)
Anti-Ghrelin	Goat			1:500	(sc-10368) Santa Cruz
Anti-GIP	Rabbit	1:6000	1:4000		(80867-4)
Anti-GIP	Goat			1:600	(sc-23554) Santa Cruz
Anti-GLP-1	Rabbit	1:6000	1:8000		(2135-8)
Anti-GLP-1	Goat			1:1300	(sc-7782) Santa Cruz
Anti-Motilin	Rabbit			1:10000	(AB17-CRB)
Anti-Neurotensin	Rabbit	1:3200	1:10000		(3844-7)
Anti-Neurotensin	Goat			1:800	(sc-7592) Santa Cruz
Anti-PYY	Rabbit	1:6000	1:2000		(7260-5104) Biogenesis
Anti-PYY	Goat			1:400	(sc-47318) Santa Cruz
Anti-Secretin	Rabbit	1:4000	1:8000	1:4000	(5585-3) Jan Fahrenkrug
Anti-Secretin	Goat			1:1000	(sc-21023) Santa Cruz
Anti-Somatostatin	Rabbit	1:6000			(1759-6)
Anti-Somatostatin	Goat		1:600	1:3000	(sc-7819) Santa Cruz

**Table S1. Table of used antibodies.** Cryo (mouse) and Paraffin (Human) were used for fluorescence microscopy, whilst, Paraffin (Mouse) was used with Peroxidase DAP.

**Table S2**

gene name	entrez id:	figures:	Target sequence and if known primers are underscored:
Cholecystokinin	12424	2,3,5	AAACAAACCACATACGACCCCTCGCCTTAATGTCTGACGTTTGAGTATCTATTATAAGTCCCCAA TGTGAAATCTGTCCAGAGTGTCAATGCAGCCACATCTCAGCCTAGCTGTGGTCGGAAGGCAGTGT CTCTTCACTGACTCCAGACCTAATGTTGCTATGCTATTAAAGAGATTCTCTCTGCCCT
peptide YY	217212	2,3,5	CAGCGACAGCAGAACCTCCCTTCAGGCCAGAAGGTTGGACCATGGTGAAGACTCCCCAAGGCCTC CTGCGAGATGTGTTAACACTACACCGACTTACATTGCTATGTTGGTTAAGAAGAGGGCAGTCATATCTCG GTGTCGAGACACCCAGACTGGAGGGCTGTGTTATTCCCTGCTCTAAATAAAA
ghrelin	58991	2,3,5	CAGCAGCATGGCGGGCCCTGGGAAGTTCTTCAGGATATCCTCTGGGAAGAGGTCAAAGAGGCAG CTGACAAGTAACCACCGACAGGCCGACCCCTGCTTCTCTCCTGAGCAAGAACTCACATCCGC CAGCCTCTCGCAACTCCAGACTCTCTACCACCTTAAAGATAAAATGTTCACCTGTA
secretin	20287	2,3,5	TGGTCGAACACTCAGACCCCTACAGGACTGGCTCTGCCAGGCTGTCCTGGATGGGTCCTGTCTCT GGCTGCCTCTGGACCAAGGTCTGCTGTTGATCGTTCAGAGTGGACTGAAACACCAGGCCACCCAGATG AGGGAGGAAGAGTCTCTAGGACCCGGCTGGAGTAGGGATTGGTTGCTTGGCATCAAT
glucagon	14526	2,3,5	GATGAACACCAAGAGGAACCGAACACATTGCCAAACGTCTGATGTAATTGAGAGGCATGCTGAAGGG ACCTTACCACTGATGTGAGTTCTTACTTGGAGGGCAGGCAGAAAGAATTCTGGCTGGCTGGTA AAGGCGAGGAAGCGAGACTCCAGAAAGAAGTCGCCCCATTGCCAGGAACTCGGCCGCA
somatostatin	20604	2,3,5	TACTCTTGGCAGAGCTGCTGTCGGACCCAAACAGACAGAGAATGATGCCCTGGAGCCCGAGGATTTC CCCAGGCAGTGTGAGCAGGAGAGATGAGGCTGGAGCTGAGGCTCTGCCAACTCGAACCCAGCAATGGC ACCCGGGAACGCAAAGCTGGCTGCAAGAACATTCTCTGGAAAGACATTACATCCTGTTA
tachykinin 1	21333	2,3,5	GTGGCTTATGAAAAGAGCCGATGCGAGAACTACGAAAGAGCAGTAAATAACCCCTGAACGCACTATCT ATTCACTCTCATCTGTGTCAGTGAGCAGTGAACGGTAAATAAAATGTCGCTATGAGGAATGATTATT ATTTAAACACATGTTGTTGAGTGAACAAAGACTCAAAAGAGTGTATTATTTTCTAT
gastric inhibitory polypeptide	14607	2,3,5	TGGCCCTCGACCTCGAGGTCCAAGGTACCGAGGGGACTTCATCAGTGATTACAGCATGCCATGGC AAGATCCGACAACAAAGACTTCGTGAACCTGGCTGCTGGCACAGAGGGGAGAAAGACTGACTGAAACACA ACATCACCCAGAGAGAGGGCCGGCTTGGTGTGGCAGGGCAATTCTCAGGGAAAGGAGG
neurotensin	67405	2,3,5	GTCTTGGAAAATGACCTTGCTAAATGTTGCAAGCCTCATAAAACGTGAACAGCCGGCGAGGAAGCA GGAGACATGATGACGACCTTGTGCAAAAGGAACCTCCCTTGTGATGTTTAGCTGG AAGCAATGTCGACCATCTCCAGCTCCAGAAAATCTGCCAGCAGGGCTTCAACACT
tyrosine 3-monooxygenase/trypthophan 5-monooxygenase activation protein, zeta polypeptide	22631	2,3,5	GCACAGGCTCACTCCCTTTACTGTCTTGTCAACCAACATTCCAACCTGGTGGCCATGTTGGGAAA AGGGCCGCGATGATCTTCTGGCTCCACTCAGTGTCAAGATAACCGCTCCCTGCTTGCTCCACAGC CTCCCTCATCCTCTACAGCCCAGTCGCCCTCAGTTGAGCTGTGTTATCTCCCTGG
Cholecystokinin	12424	4,5	<u>CCCCAATGTGAAATCTGTCCAGAGTGTCAATGCAGCCACATCTCAGCCTAGCTGTGGTCGGAAGGCA</u> <u>GTGTTCTTCAGTGACTCCCAGAC</u>
ghrelin	58991	4,5	GTCCTCACCAAGACCATGCTGCTTCAGGCACCCTGAGTTGCTGCTACTCAGCATGCTCTGGA TGGACATGCCATGGCAGGCTCCAGCTTGTGAGCCAGACAGCACCAGAAAGCCAGCAGAGAAAGGAATC <u>CAAGAACGCA</u>
gastric inhibitory polypeptide	14607	4,5	GAGTCCGATCCATGCTAAATTGCTGCCCTGACCTCGAGGTCCAAGGTACGCAGAGGGACTTCA TCAGTGATTACAGCATGCCATGGACAAAGATCCGACAAACAA
secretin	20287	4,5	GATGGGCTCTGTCTCTGGCTGCCCTGGGCCAACAGGTCTGCTGTTGATCGTTGAGAGTGGACTGAAA <u>CAACCAAGGC</u>
alkaline phosphatase	171740	5	CTGCCAAGAGCTGCAGCCATTACAGACATCAGCTAACAACTCATCTTCTGGAGACGGGATGGG GGTACCCACAGTGACAGCCACCAGGATCTAAAGGGCAGTTGGAGGCCATCTAGGACGGAGACACCC <u>CTAGCC</u>
apolipoprotein A-IV	107690	5	GCCCAGTGAGGAGCCAGGATTTCTGAAAGGCTGCGGTCTGACCCCTGGCCATCACC ACCCGGCTGAGGTCAATTGGACAGGTGGCCAATGTGG
lysozyme 1	17110	5	AGCTGGCTGACTGGGTGTTAGCTCAGCATGAGAGCAATTATAACACACGAGCTACAAACTACAAACG <u>TGGAGACCAAGCACCG</u>
defensin, alpha 5	1670	5	ACTGAGGAGCCAGCCAGGGAAAGAGGACCAAGGCTGTCATCTCTTGGAGGCCAAGAAGGGCTGCTC TTCATGAAGAATTGTCAAAAAGCTGATATGCTATTGTAAGAATAAGGGCTGCAAAGAGAAGAACGCGT

**Table S2. Target sequence of genes analyzed by QPCR.**