Supplementary Materials and Methods

Fly Genotypes

yw; escargot-gal4, UAS-gfp/+; tub-gal80^{ts}/+

yw; escargot-gal4, UAS-gfp/UAS-Src64^{wt}; tub-gal80^{ts}/+

yw; escargot-gal4, UAS-gfp/+; tub-gal80^{ts}/UAS-Src42^{CA}

UAS-Dicer2/UAS-Csk-IR; escargot-gal4, UAS-gfp/UAS-Src64^{wt}; tub-gal80^{ts}/+

yw; escargot-gal4, UAS-gfp/UAS-Src64^{wt}; tub-gal80^{ts}/UAS-ChK

UAS-Dicer2/+; escargot-gal4, UAS-gfp/+; tub-gal80^{ts}/+

UAS-Dicer2/+; escargot-gal4, UAS-gfp/UAS-Src42-IR^{KK}; tub-gal80^{ts}/+

UAS-Dicer2/+; escargot-gal4, UAS-gfp/UAS-Src42-IR^{CG}; tub-gal80^{ts}/+

yw; escargot-gal4, UAS-gfp/ Src42^{K10108}; tub-gal80^{ts}/+

w^{-}; esg-gal4, tub-gal80^{ts}, UAS-gfp/+; UAS-flp, act>CD2>gal4/+

w^{-}; esg-gal4, tub-gal80^{ts}, UAS-gfp/ UAS-Src42-IR^{CG}; UAS-flp, act>CD2>gal4/+

y,*w,hsFlp/+; UAS-CD8-gfp, tub-gal4/+; FRT82B, tub-gal80/LacZ FRT82B*

y,*w,hsFlp/+; UAS-CD8-gfp, tub-gal4/+; FRT82B, tub-gal80/Apc1^{Q8}FRT82B*

y,*w,hsFlp/+; UAS-CD8-gfp, tub-gal4/ UAS-Src42-IR^{CG}; FRT82B, tub-gal80/LacZ FRT82B*

y,*w,hsFlp/+; UAS-CD8-gfp, tub-gal4/ UAS-Src42-IR^{CG}; FRT82B, tub-gal80/Apc1^{Q8}FRT82B*

yw; escargot-gal4, UAS-gfp/UAS-Src64^{wt}; tub-gal80^{ts}/UAS-Ras-IR

yw; escargot-gal4, UAS-gfp/UAS-Src64^{wt}; tub-gal80^{ts}/UAS-egfr^{DN}

yw; escargot-gal4, UAS-gfp/UAS-Ras-IR; tub-gal80^{ts}/UAS-Src42^{CA}

yw; escargot-gal4, UAS-gfp/UAS-egfr-IR; tub-gal80^{ts}/UAS-Src42^{CA}

yw; esg-gal4, UAS-GFP/EGFR^{TOP1}; tub-gal80^{ts}/UAS-Src42^{CA}

yw; escargot-gal4, UAS-gfp/UAS-stat-IR; tub-gal80^{ts}/UAS-Src42^{CA}

yw; escargot-gal4, UAS-gfp/UAS-dome-IR; tub-gal80^{ts}/UAS-Src42^{CA}

yw; escargot-gal4, UAS-gfp/+; tub-gal80^{ts}/UAS-Ras-IR

yw; escargot-gal4, UAS-gfp/UAS-egfr-IR; tub-gal80^{ts}/+

yw; escargot-gal4, UAS-gfp/UAS-stat-IR; tub-gal80^{ts}/+

yw; escargot-gal4, UAS-gfp/UAS-dome-IR; tub-gal80^{ts}/+

UAS-JNK^{DN}/+; escargot-gal4, UAS-gfp/UAS-Src64^{wt}; tub-gal80^{ts}/+

Mouse Strains

AhCre (Ireland et al, 2004)

LGR5-CreER (Barker et al, 2009)

Rosa-LacZ (Soriano, 1999)

Apc$^{fl/fl}$ (Shibata et al, 1997)

Apc$^{Min/+}$ (Su et al, 1992)

Src$^{fl/fl}$ (Marcotte et al, 2012)

Fyn KO (Stein et al, 1992)

Yes KO (Stein et al, 1994)

In situ detection of LacZ expression

To determine the pattern of recombination at the *Rosa26R* reporter locus frozen tissue sections were stained using a β–Gal staining kit (K1465-01; Invitrogen) and following manufacturer's instructions (Figure S5L, M). β–Gal staining of whole-mount tissues (Figure S5K) was done in a 5% X-Gal solution (B4252; Sigma).

Quantification of cell proliferation and migration by BrdU incorporation

Intestinal proliferation was scored by quantifying the numbers of $BrdU^{+ve}$ cells present within randomly selected fifty half crypts from small intestinal gut rolls after a two-hour of BrdU pulse-chase. The average number of $BrdU^{+ve}$ cells per mouse intestine was then calculated.

Cell migration was scored by quantification of the position of $BrdU^{+ve}$ cells within twenty-five randomly selected crypt/villae units from small intestinal gut rolls following a 48-hour BrdU pulse-chase. The cumulative percentage of $BrdU^{+ve}$ cells along the crypt/villae axis per mouse intestine was then calculated.

Quantification of Crypt Apoptosis and Mitosis

Apoptosis and mitotic index within small intestinal crypts was scored from H&E-stained sections as previously described (Sansom et al, 2004).

Quantification of Crypt length

Length from a minimum of fifty small intestinal crypts was scored using ImageJ. Data represents average values (in μm) from three mice.

References

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