Supplemental Text

Supplemental Figure Legends

Figure S1: Co-localization analyses of confocal images. Co-staining of internalized IgE and FcεRIγ was performed for the indicated times with A) EEA1, B) Rab-5, C) Rab-4, D) Rab-11, E) Rab-7, and F) LAMP1. The Pearson's correlation coefficient of co-localized volumes was measured in whole z-stacks of confocal images using imaris software and plotted versus time. The data shown are obtained from at least three to five confocal stacks of individual cells, representative of two or three independent experiments. The error bars indicate the standard error of the mean.

Figure S2: Additional cells showing co-localizations for IgE-EEA1, FcεRIγ-EEA1 and FcεRIγ-IgE as in figure in the manuscript for the 0 min (Fig. S2A), 15 min (Fig. S2B), 30 min (Fig. S2C), and 60 min (Fig. S2D) time points and images at lower zoom (Fig. S2E).

Figure S3: The overlap of IgE-Rab5 signals and Fcγ-Rab5 signals from Figure 2 shown in higher magnification.

Figure S4: Additional cells showing co-localizations for IgE-Rab5, FcεRIγ-Rab5 and FcεRIγ-IgE for the 30 min (A) and 60 min (B) time points.

Figure S5: Additional cells showing co-localizations for IgE-Rab4, FcεRIγ-Rab4 and FcεRIγ-IgE for the 60 min (A) and 120 min (B) time points.

Figure S6: Additional cells showing co-localizations for IgE-Rab11, FcεRIγ-Rab11 and FcεRIγ-IgE for the 60 minute time point.

Figure S7: Additional cells showing co-localizations for IgE-Rab7, FcεRIγ-Rab7 and FcεRIγ-IgE for the 60 min (A) and 120 min (B) time points.

Figure S8: Additional cells showing co-localization of IgE-LAMP-1 and IgE- FcεRIγ in $Syk^{+/+}$ and $Syk^{-/-}$ cells at the 30 minute time point.

Movies 1, 2 & 3. Localization of FcεRIα and -γ chains in early endosomes. Cells were treated and stained as described in legend for Figure 1. Three dimensional images are presented for the same 2-channel combinations shown in Fig. 1. Shown here is a movie of a cell co-stained with FcεRIα and γ chains at the 0 minute (Movie 1) and 30 minutes (Movie 2) time points and co-staining of FcεRI γ and EEA1 at 30 minutes (Movie 3). For color relationships, see figure legends and corresponding text.

Movies 4 & 5. Accumulation of FcεRI in Rab7 positive late endosomes at 30 minutes (Movie 4) and 2 hours (Movie 5) after ligation. Images were acquired as shown in the legend for Figure 4. Rab7 is shown in green and FcεRIγ is shown in red.

Movies 6 & 7. FcεRIα and -γ chains of aggregated receptor remain associated in lysosomes. Three dimensional images are presented for the 2-channel combinations (IgE in green and LAMP-1 in red) as shown in Fig. 5.