Defining the Intravital Renal Disposition of Fluorescence-Quenched Exenatide

Supporting Information

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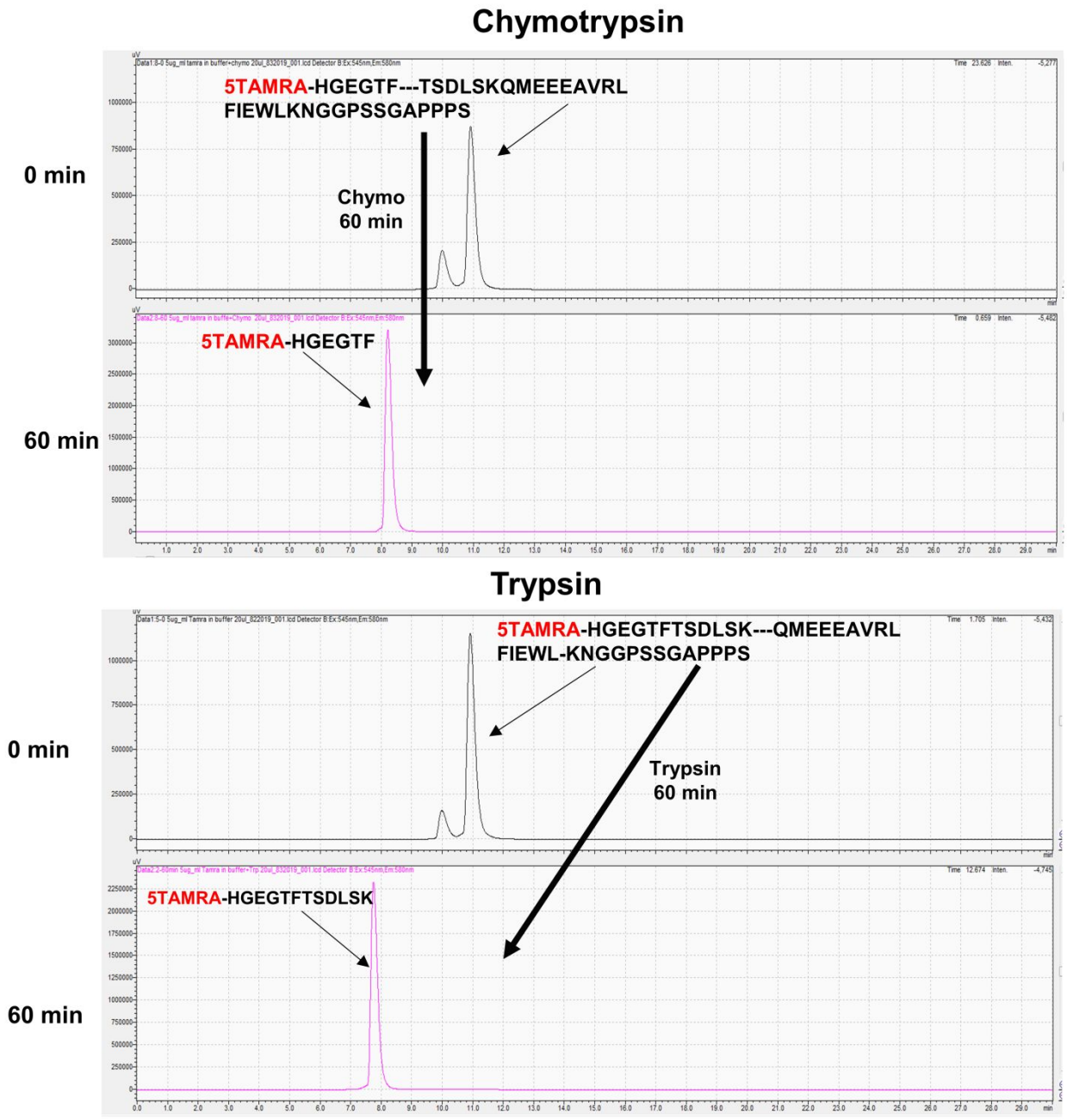

Figure S1: Representative HPLC Chromatograms of TAMRA-Ex Following Enzymatic Digestion. The TAMRA-Ex peptide was incubated with purified chymotrypsin or trypsin as detailed in Experimental Methods. Timed samples were collected and injected for either LC/MS/MS or HPLC with fluorescence detection. Representative HPLC chromatograms for each enzymatic digestion are pictured for the 60 minute time point. Sequences of the intact peptide or cleaved product were confirmed via LC/MS/MS.

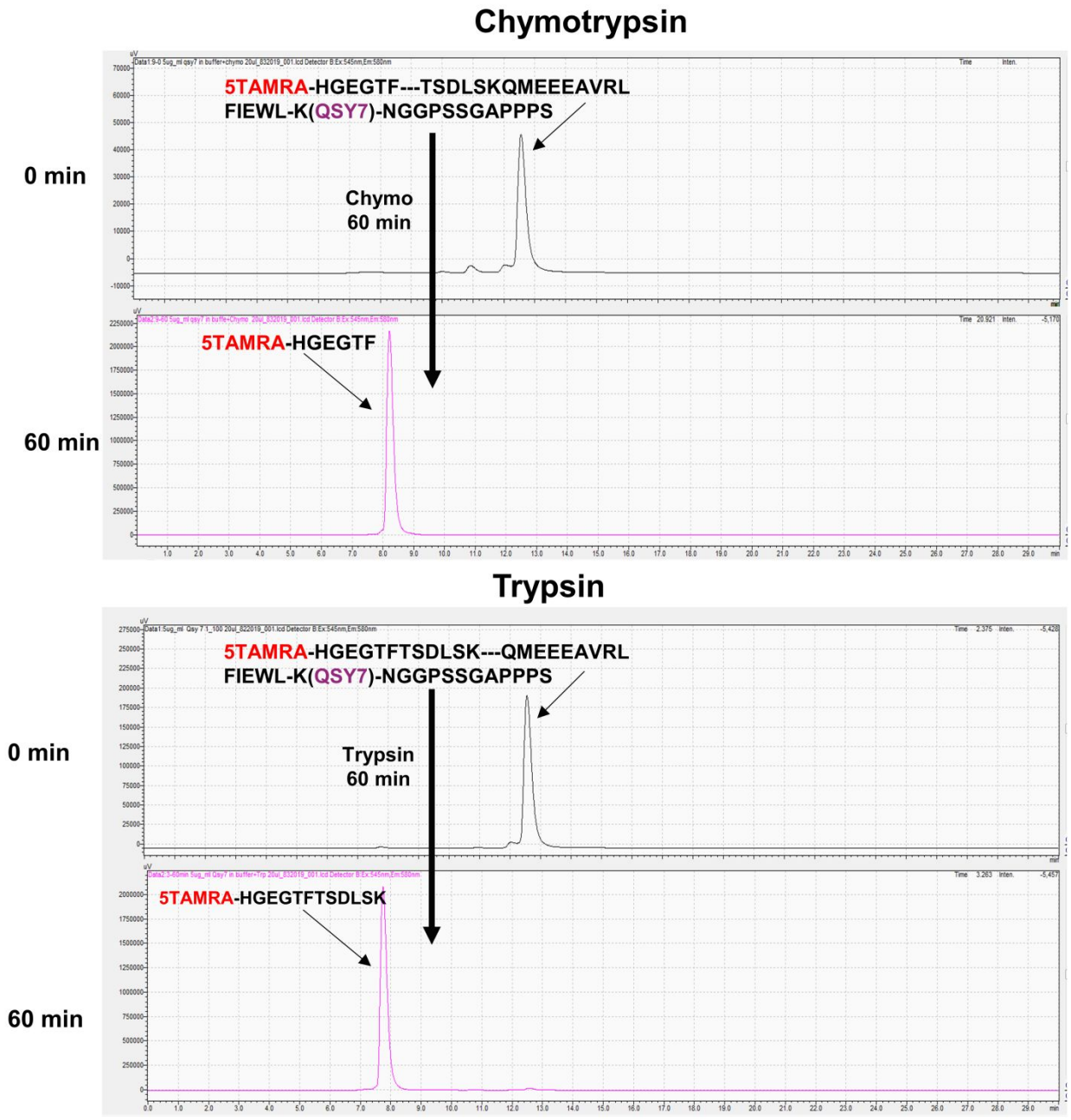

Figure S2: Representative HPLC Chromatograms of FRET-Ex Following Enzymatic Digestion. The FRET-Ex peptide was incubated with purified chymotrypsin or trypsin as detailed in Experimental Methods. Timed samples were collected and injected for either LC/MS/MS or HPLC with fluorescence detection. Representative HPLC chromatograms for each enzymatic digestion are pictured for the 60 minute time point. Sequences of the intact peptide or cleaved product were confirmed via LC/MS/MS. Note the shift in fluorescence intensity from the intact peptide to the metabolized product.

Supporting Video 1: Movie capturing the initial administration of TAMRA-Ex. Note the immediate appearance of TAMRA fluorescence within the glomerular capillaries, Bowman's space, and PTEC brush borders, which is glomerular filtration and PTEC binding of the peptide.

Supporting Video 2: Movie capturing the initial administration of FRET-Ex. Unlike TAMRA-Ex, negligible fluorescence is observed in glomerular capillaries and Bowman's space. The only observable TAMRA fluorescence within the video occurs at the PTEC brush borders, which corresponds to the initial metabolism of exenatide within the kidney.