

Supplementary Material

Transport of dietary anti-inflammatory peptide, γ -glutamyl valine (γ -EV), across the intestinal Caco-2 monolayer

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FIGURES

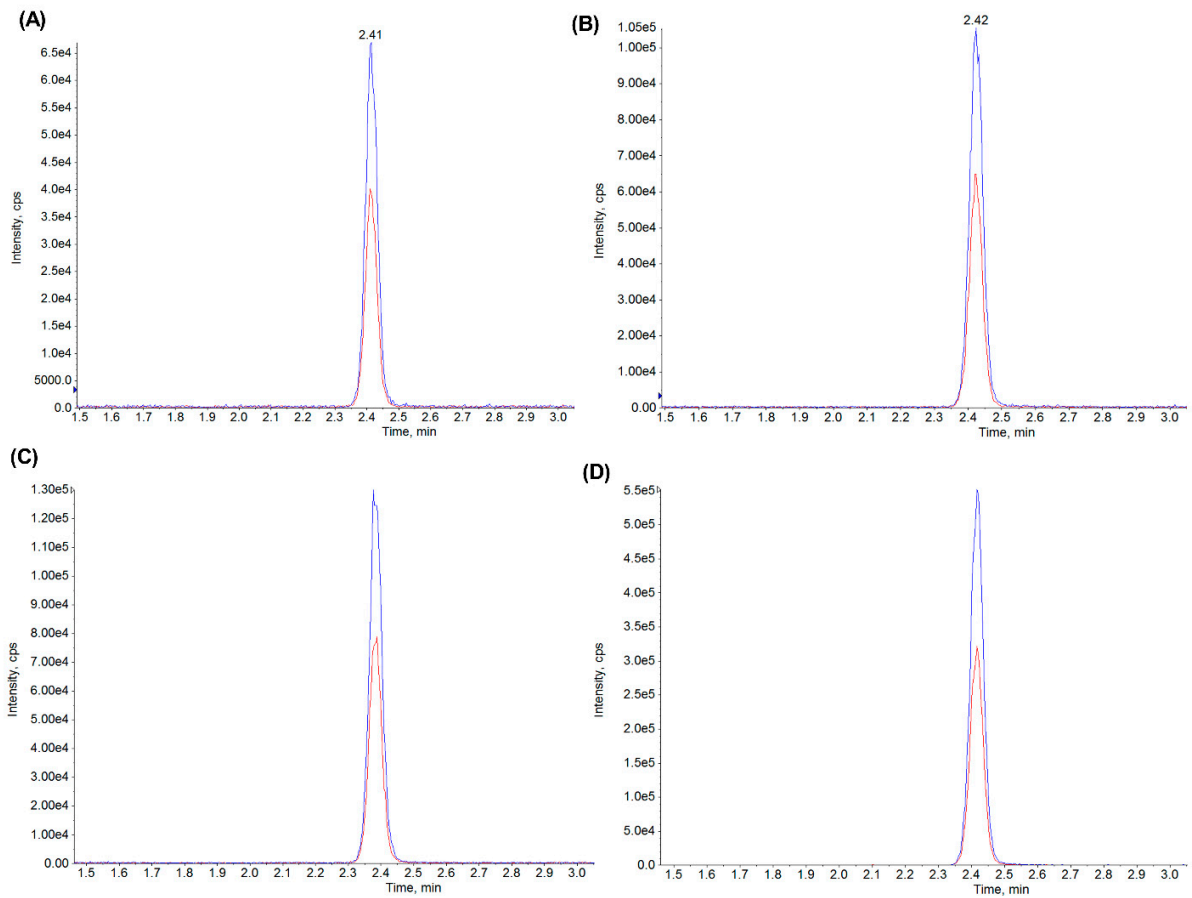


Figure S1: Stability of γ -EV during transport through the Caco-2 monolayer cells. (A) MRM chromatogram of γ -EV in the basolateral solution after 4 h of transport. (B) MRM chromatogram of γ -EV in the basolateral solution after 6 h of transport. (C) MRM chromatogram of γ -EV in the basolateral solution after 2 h of transport for the 2.5 mM dose. (D) MRM chromatogram of γ -EV in the basolateral solution after 2 h of transport for the 5 mM dose.

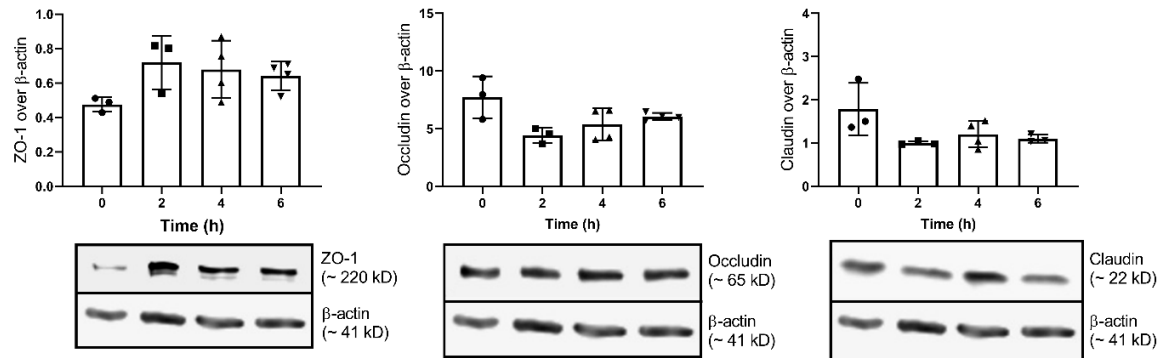


Figure S2: Western immunoblotting of the tight junction proteins for the time-dependent transport study of γ -EV. The expression levels of the three tight junction proteins, (A) ZO-1, (B) Occludin, and (C) Claudin-1, did not differ significantly among the different time periods of 2, 4, and 6 h, during the transport of γ -EV across the Caco-2 monolayer cells. Data presented as the mean \pm SD of at least three independent experiments.

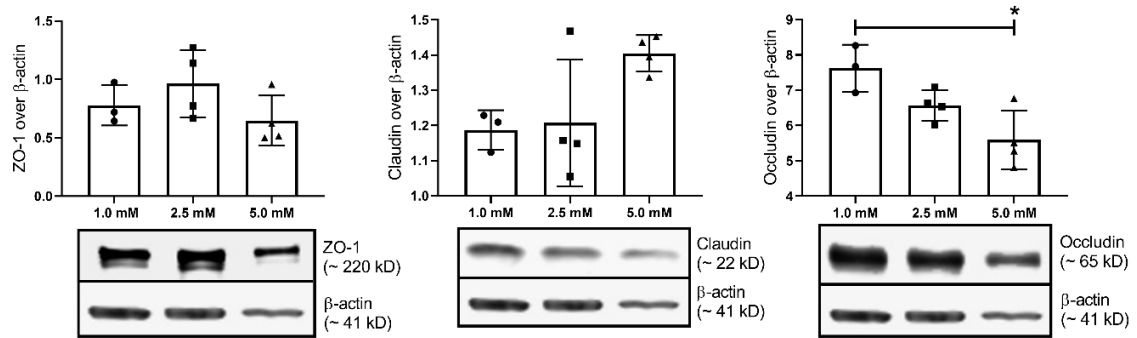


Figure S3: Western immunoblotting of the tight junction proteins for the dose-dependent transport study of γ -EV. The expression levels of the tight junction proteins, (A) ZO-1, and (B) Claudin-1, did not differ significantly among the different doses of 1, 2.5, and 5 mM during the transport of γ -EV across the Caco-2 monolayer cells. However, in case of (C) Occludin, a reduction ($p < 0.05$) was seen in the case of 5 mM dose during the transport. Data presented as the mean \pm SD of at least three independent experiments. Statistically, the data are represented as $p < 0.001$ for (***), $p < 0.01$ for (**), and $p < 0.05$ for (*).

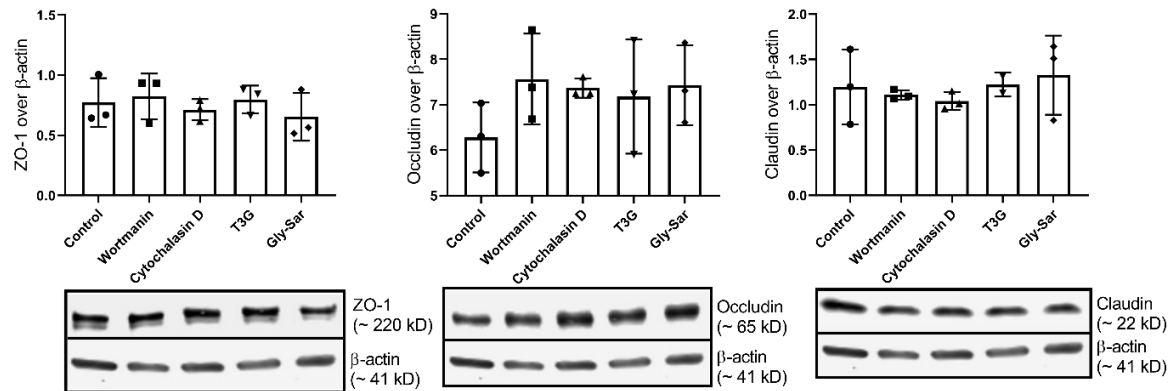


Figure S4: Western immunoblotting of the tight junction proteins for the mechanism of transport study of γ -EV. The expression levels of the three tight junction proteins, (A) ZO-1, (B) Occludin, and (C) Claudin-1, did not differ significantly among the different transport inhibitor treatments (wortmannin, cytochalasin D, TF3'G, and Gly-Sar), during the transport of γ -EV across the Caco-2 monolayer cells. Data presented as the mean \pm SD of at least three independent experiments.