

Figure S10: Results of the LCMS analysis of the absolute configuration of BII-Rafflesfungin by Marfey's method. Extracted ion chromatograms (EIC) for $\pm 5\text{ppm}$ corresponding to the $[\text{M}+\text{H}]^+$ ions of derivatized amino acids, which are present in the peptide scaffold of BII-Rafflesfungin. **a)** Hydrolyzed **BII-Rafflesfungin** derivatized with FDAA reagent. **b)** Derivatized glycine (Gly) standard with FDAA reagent. **c)** Derivatized D- and L-alanine (Ala) standards with FDAA reagent. **d)** Derivatized D- and L-aspartic acid (Asp) standards with FDAA reagent. **e)** Derivatized D- and L-glutamic acid (Glu) standards with FDAA reagent. **f)** Derivatized D- and L-serine (Ser) standards with FDAA reagent. **g)** Derivatized D- and L-threonine (Thr) standards with FDAA reagent. **h)** Derivatized D- and L-allo-threonine (allo-Thr) standards with FDAA reagent.

