

Table 1. Typical alpha-granule proteins from human platelets released in response to thrombin plus collagen (adapted from Wijten et al ATVB 2013) or thrombin and collagen alone (adapted from Vélez et al Sci Rep 2015)

The table includes typical alpha-granule proteins (protein description, gene name, Uniprot accession number and estimated copy number per platelet (Burkhart et al Blood 2012)) categorized for major platelet functions and released.

Methods Wijten et al

1. in response to thrombin plus collagen (2x10⁸ platelets, collagen (5 µg/mL) + thrombin (1 U/mL) 5 min., releasate contains microparticles; analysis: LC-MS/MS, ELISA); release/esting ratio per replicate, average ratio, ratio % RSD, % release (1-(average of ratios < 1)*100), if the protein was deemed an outlier for each of the replicates; the estimation of the concentration protein released per ml of blood; prediction of the presence of a signal tag; Uniprot keyword analysis for "Secreted"; designation of documented or predicted secreted protein; PSMs (peptide spectrum matches), adapted from Wijten et al ATVB 2013. This assay is monitoring quantitatively the concentration changes of all proteins in the platelets after platelet stimulation, whereby we assume that the released protein content should be detectable in the reduction of its level from the whole platelet proteome.

Methods Vélez et al

2. in response to thrombin or collagen alone (collagen (30 µg/mL) or thrombin (0,75 U/mL) 3 min. at 37 °C, releasate contains microparticles; analysis: 2D-DIGE, MS; all differentially regulated proteins: p<0.05), adapted from Vélez et al Sci Rep 2015 .