Fig. 1

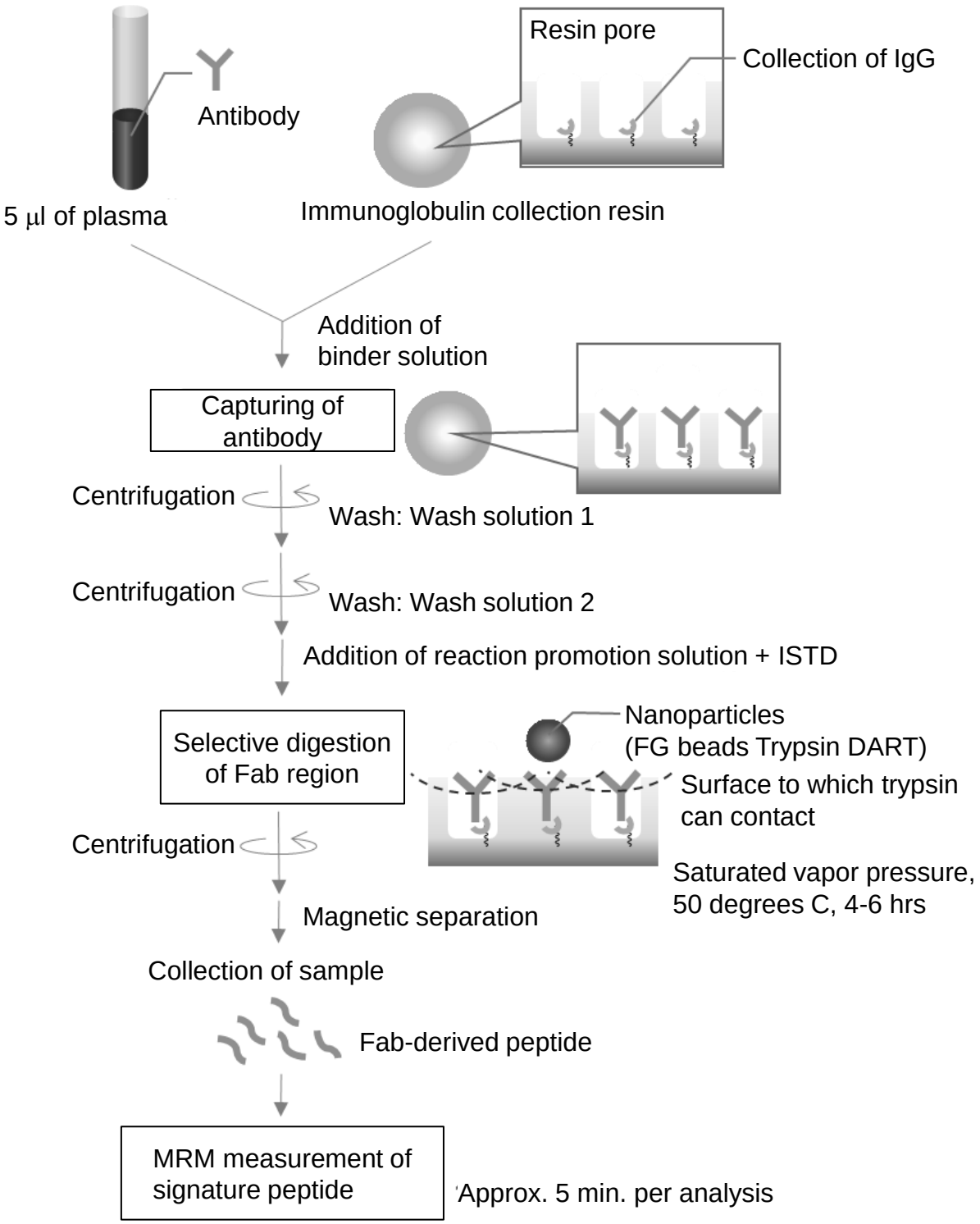

Antibody
5 μl of plasma
Resin pore
Collection of IgG
Immunoglobulin collection resin
Addition of binder solution
Capturing of antibody
Centrifugation
Wash: Wash solution 1
Centrifugation
Wash: Wash solution 2
Addition of reaction promotion solution + ISTD
Selective digestion of Fab region
Nanoparticles
(FG beads Trypsin DART)
Surface to which trypsin can contact
Saturated vapor pressure, 50 degrees C, 4-6 hrs
Centrifugation
Magnetic separation
Collection of sample
Fab-derived peptide
MRM measurement of signature peptide
Approx. 5 min. per analysis

Fig. 2

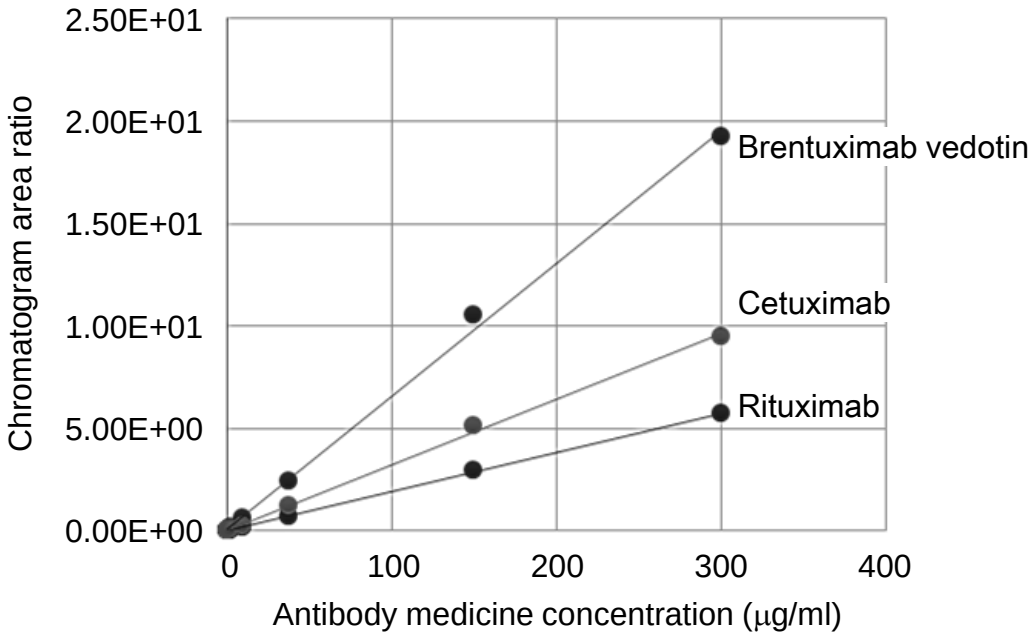
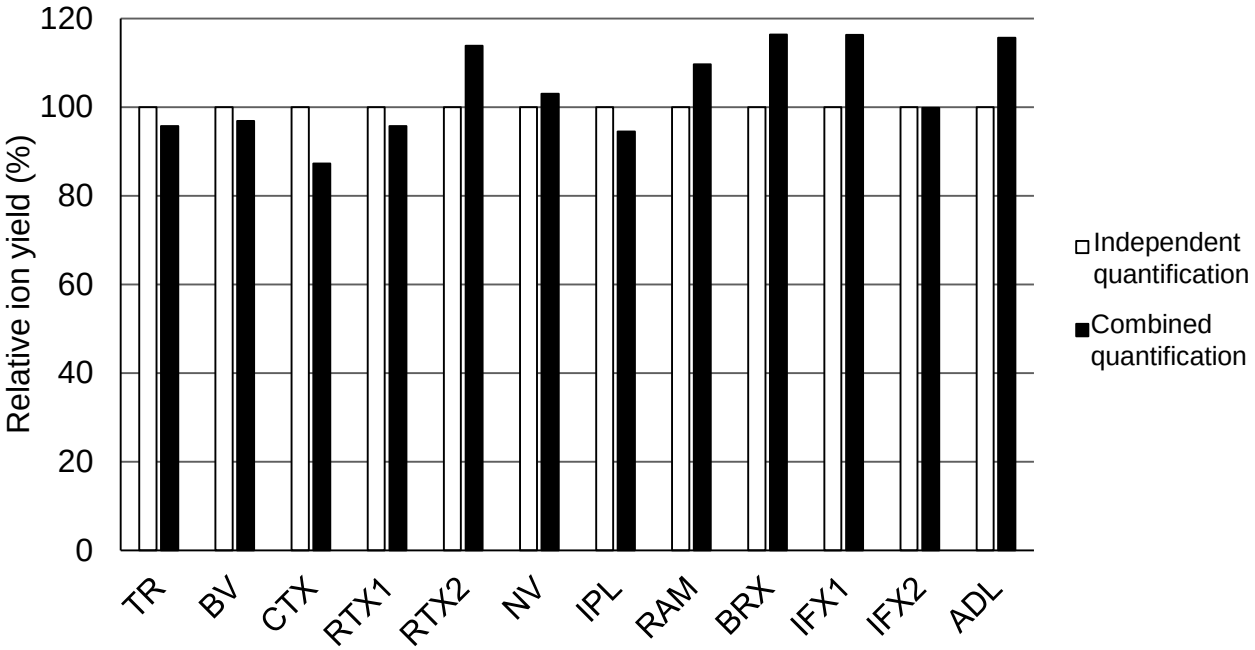

2.50E+01
2.00E+01
1.50E+01
1.00E+01
5.00E+00
0.00E+00
Chromatogram area ratio
0
100
200
300
400
Antibody medicine concentration (μg/ml)
Brentuximab vedotin
Cetuximab
Rituximab

Fig. 3



TR: Trastuzumab; BV: Bevacizumab; CTX: Cetuximab; RTX: Rituximab,
NV: Nivolumab; IPL: Ipilimumab; RAM: Ramucirumab,
BRX: Brentuximab vedotin; IFX: Infliximab; ADL: Adalimumab