

(Previous page) Supp. Fig. 1: Validation of ICC-MS and network analysis. a, Relative protein abundance of PB2 (red), PA (cyan), and NP (yellow) in PB2 ICC-MS samples shows decreasing capture with increasing competition antibody. Data shown are in biological triplicate. b, Fully annotated and zoomable version of the diagram in Fig 1d. Minimum-cost flow simulations connect top PB2 interactors identified by ICC-MS (red) to influenza host factors (gray) through novel host proteins (white). Modules comprising different PB2 interactors with enriched GO terms and P values indicated. Node sizes indicate empirical P values based on the control flow simulation. c, Enlarged view of MECR-containing module. d, Validation shows that flow simulation networks of protein-protein interactions reflect biochemical pathways that regulate viral replication. Flow simulation captured PKR interactions with RNA binding proteins DHX30, IGF2BP2, and TARBP, and linked RIG-I with TRIM14 through MAVS, and also IFIT3, LGP2, and USP15. Additionally, export pathways were faithfully reconstructed with NXF1 connecting with NXT2 and CRM1 connecting with NXF3. Our networks linked EXOSC3 to the exosome components EXOSC4, EXOSC5, and EXOSC8 and with the NEXT accessory complex (RBM7), both of which are important for influenza transcription (Rialdi et al., 2017).