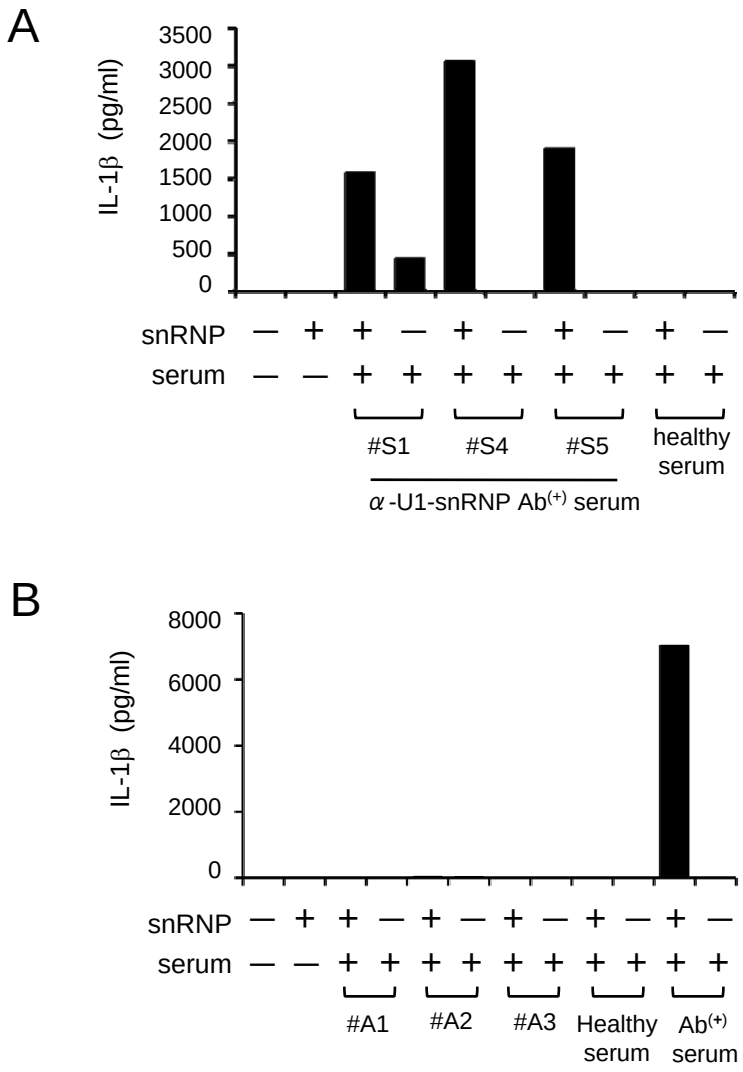
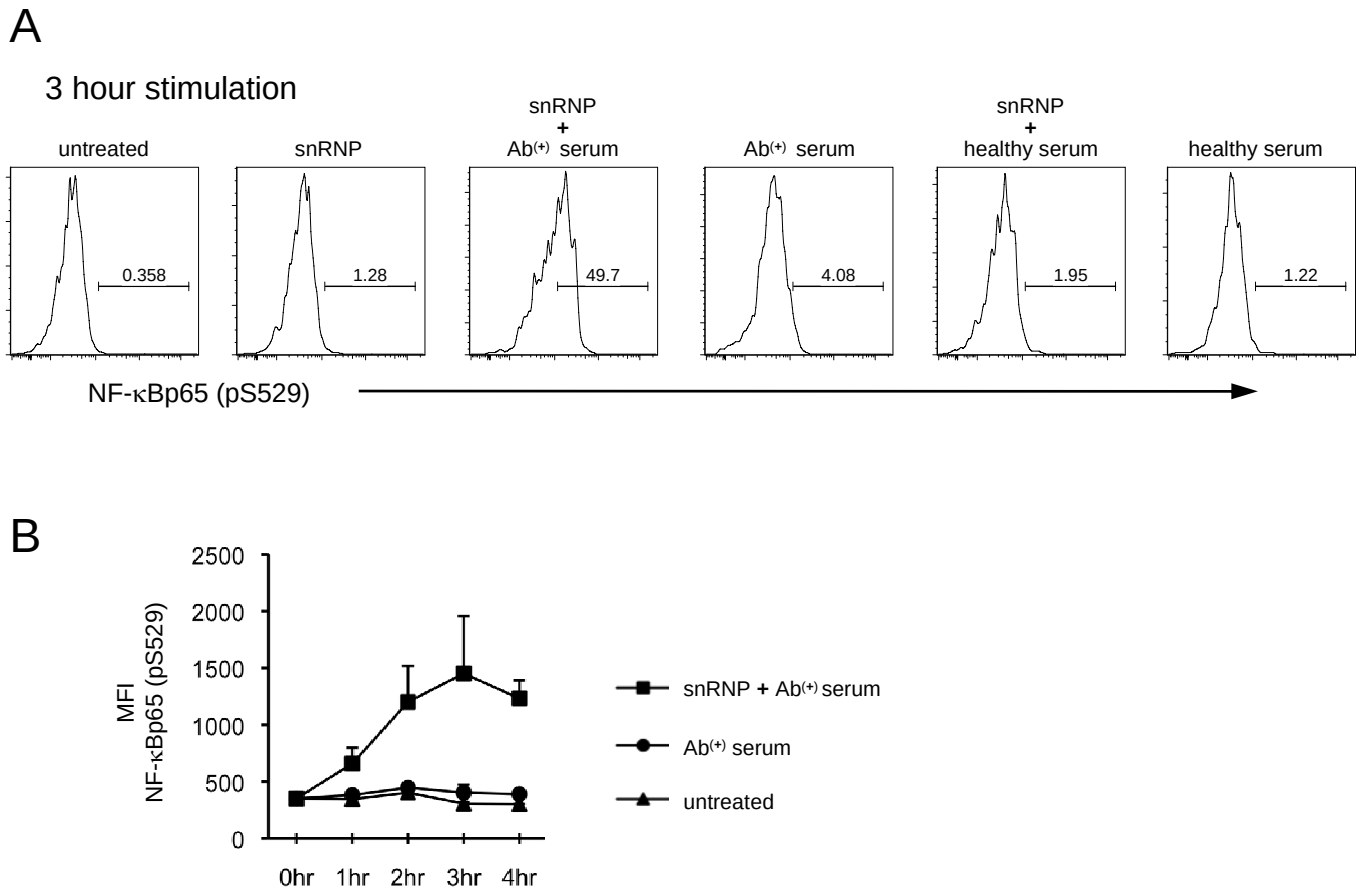
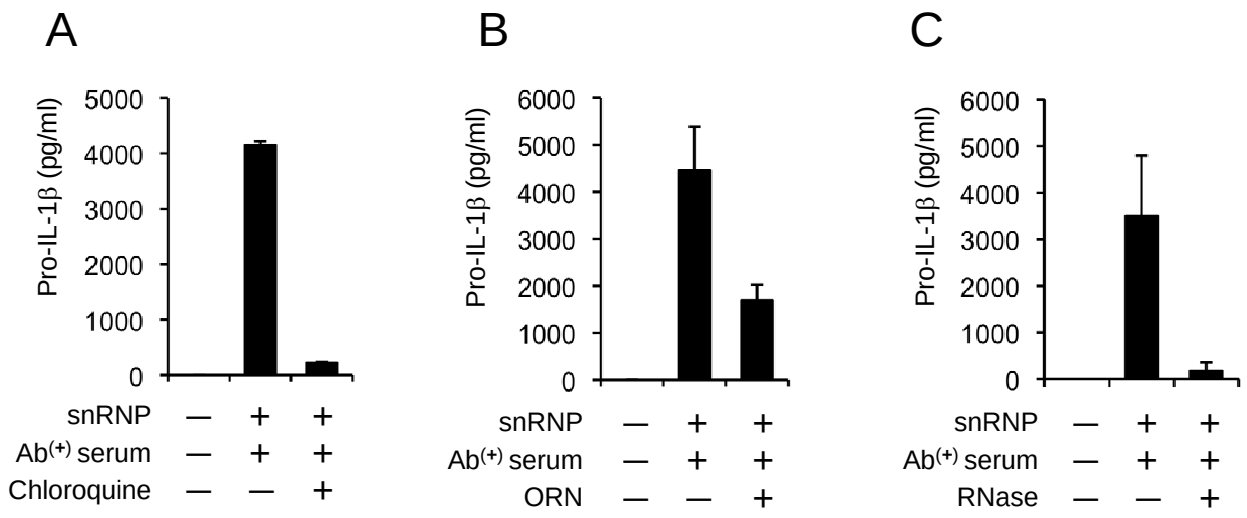


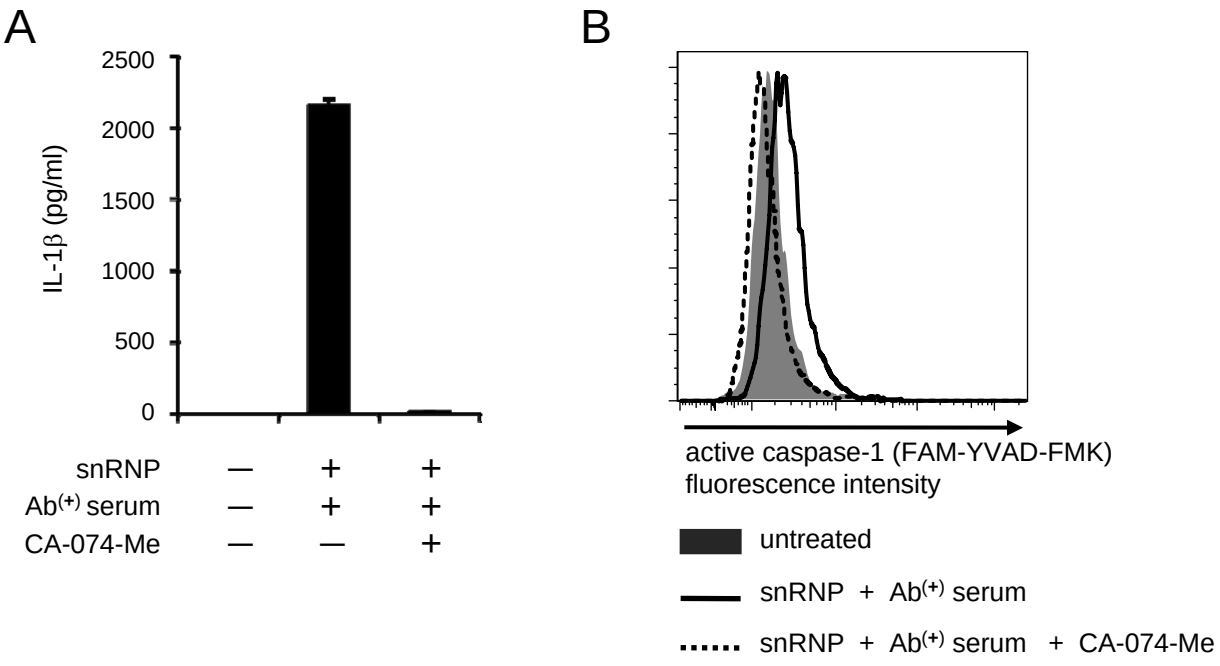
Supplemental Fig. 1. U1-snRNP induces IL-1β production from human monocytes in an autoantibody-dependent manner. IL-1β ELISA at 18 hours from culture supernatants of monocytes incubated in the following conditions. (**A**) Monocytes from a single donor were incubated with or without U1-snRNP (snRNP, 5 μg/ml) in the presence or absence of anti-U1-snRNP ($Ab^{(+)}$) serum (5% final concentration) from multiple donors (#S1, #S4 and #S5). (**B**) Monocytes from a single donor were treated with or without U1-snRNP in the presence or absence of healthy serum, anti-U1-snRNP ($Ab^{(+)}$) serum or ANA-positive sera without anti-U1-snRNP antibodies (#A1- #A3). $*P < 0.05$



Supplemental Fig. 2. U1-snRNP induces the activation of NF-κB in human monocytes in the presence of anti-U1-snRNP ($Ab^{(+)}$) serum. (**A-B**) Flow cytometric analysis of NF-κB activation in monocytes incubated for 0 - 4 hours with or without U1-snRNP (snRNP) in the presence or absence of healthy serum or anti-U1-snRNP ($Ab^{(+)}$) serum. (**A**) Representative data from 3 independent experiments. (**B**) Symbols and error bars indicate mean + SD (n = 2). Numbers in histograms indicate the frequency of cells stained positive.



Supplemental Fig. 3. Pro-IL-1β protein expression in monocytes treated with U1-snRNP and anti-U1-snRNP ($Ab^{(+)}$) serum is decreased by endolysomal inhibitor chloroquine, inhibitory nucleic acid sequences for TLR7/8 or RNase. Pro-IL-1β ELISA of human monocytes incubated for 10 hours with U1-snRNP and anti-U1-snRNP ($Ab^{(+)}$) serum in the presence or absence of the endolysomal inhibitor chloroquine (**A**), inhibitory nucleic acid sequences for TLR7/8 (ORN, **B**) or RNase (**C**). Bars and error bars indicate mean and standard error of mean (SEM), respectively (n = 2-8 donors for A-C).



Supplemental Fig. 4. Cathepsin B inhibitor CA-074-Me inhibits the activation of caspase-1 and IL-1β production from monocytes treated with U1-snRNP and anti-U1-snRNP ($Ab^{(+)}$) serum. (**A**) IL-1β ELISA of human monocytes incubated for 18 hours with U1-snRNP and anti-U1-snRNP ($Ab^{(+)}$) serum in the presence or absence of CA-074-Me. Bars and error bars indicate mean and SEM, respectively (n = 8 donors). (**B**) Flow cytometric analysis of active caspase-1 in monocytes treated for 7 hours with U1-snRNP and anti-U1-snRNP ($Ab^{(+)}$) serum in the presence or absence of CA-074-Me. Representative data from 3 independent experiments.