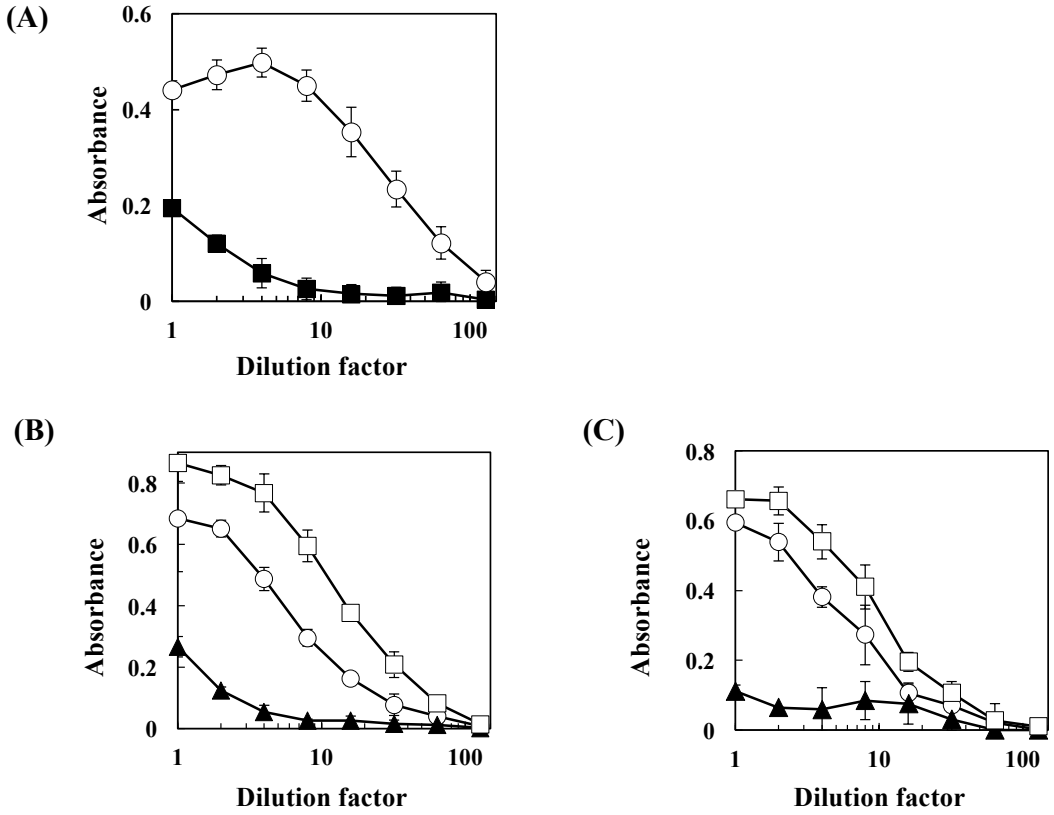

Fig. S1. (A) Level of ILY in culture supernatants of FBS-cultured cells (open circles) or MOPS-BHI-cultured cells (closed squares). (B) Level of ILY in culture supernatants of FBS-cultured cells from PC574 pSETN1 (open circles), PC574 Δ*msgA* pSETN1 (closed triangles), or PC574 Δ*msgA* p*msgA* (open squares). (C) Level of ILY in culture supernatants of FBS-cultured cells from PC574 pSETN1 (open circles), PC574 Δ*nanA* pSETN1 (closed triangles), or PC574 Δ*nanA* p*nanA* (open squares). Each culture supernatant normalized to OD_{600} was subjected to 2-fold serial dilutions in PBS up to 128-fold, and the levels of ILY in the diluted culture supernatants were determined by a sandwich ELISA, using a rabbit anti-ILY polyclonal antibody and mouse anti-ILY monoclonal antibodies as a capture antibody and a probe antibody, respectively. The bound mouse anti-ILY monoclonal was quantitatively detected using a preadsorbed Donkey Anti-Mouse IgG H&L (HRP) (Abcam Ltd., Cambridgeshire, UK) and an ELISA POD Substrate TMB Kit (Nacalai Tesque, Kyoto, Japan) according to the manufacturer's instructions. The absorbance value (OD_{450}-OD_{650}) was measured using a microplate photometer, Multiskan FC (Thermo Fisher Scientific Inc., MA, USA).

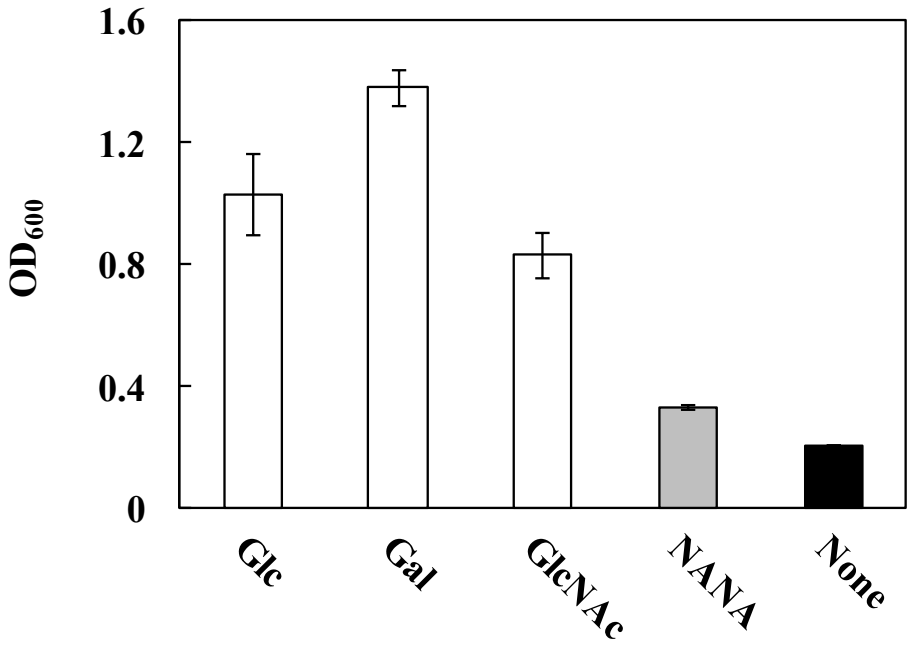

FIG. S2. Growth of PC574 in the presence of different sugars. The growth of PC574 cultures after 24 h at 37°C, in MOPS-BHI broth containing 0.2% of each of the indicated sugars, was determined by measuring the optical density at 600 nm (OD600). Glc: Glucose; Gal: Galactose; GlcNAc: *N*-acetyl-D-glucosamine; NANA: *N*-acetylneuraminic acid. Error bars represent the standard deviation of three independent experiments.

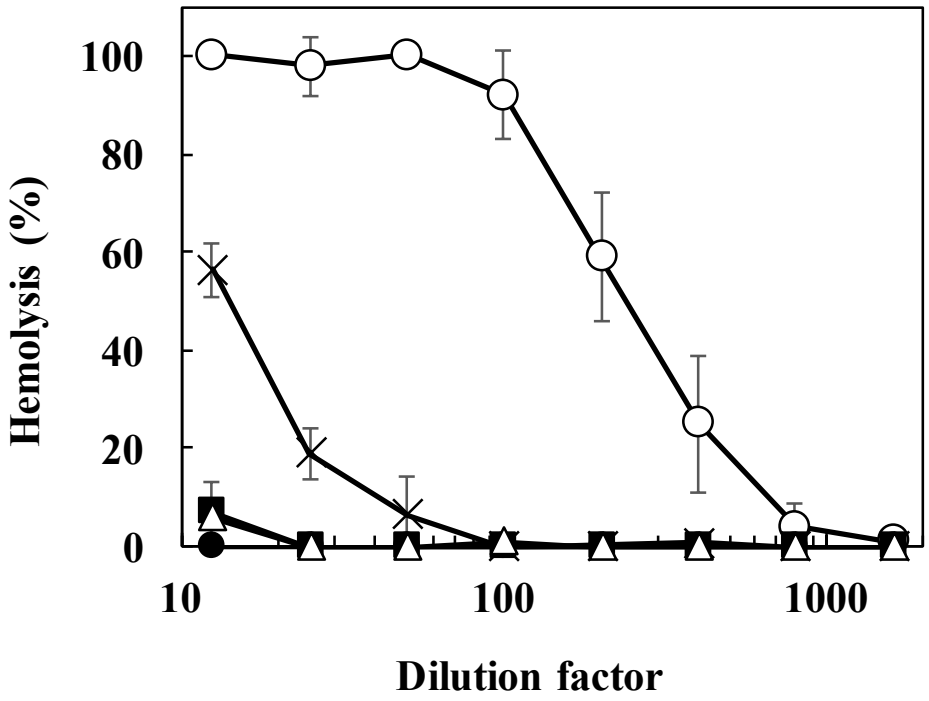

FIG. S3. Hemolytic activity in culture supernatants of PC574 cultured in MOPS-BHI broth containing different sugars. PC574 was cultured as described in Fig. S2. Culture supernatants were collected, their concentrations were standardized according to their OD_{600} measurements, and the hemolytic activity of a 2-fold dilution series of each supernatant was determined. Error bars represent the standard deviation of three independent experiments. Shown above is the hemolytic activity of PC574 cultured in MOPS-BHI broth containing either galactose (open circle), *N*-acetylneuraminic acid (open triangle), *N*-acetyl-D-glucosamine (closed square), glucose (closed circle), or no sugar (x-mark).

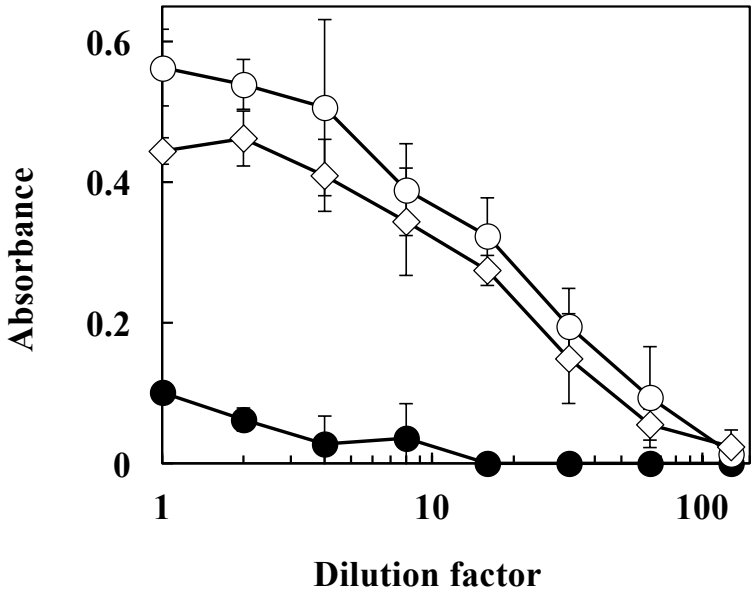

Fig. S4. Level of ILY in culture supernatants of mixed-sugar MS-BHI- (open circles), FBS- (open diamonds), or MOPS-BHI- (closed circles) cultured PC574 cells. Each culture supernatant normalized to OD_{600} was subjected to 2-fold serial dilutions in PBS containing 0.1% BSA up to 128-fold, and the levels of ILY in the diluted culture supernatants were determined by sandwich ELISA, as described in Fig. S1.

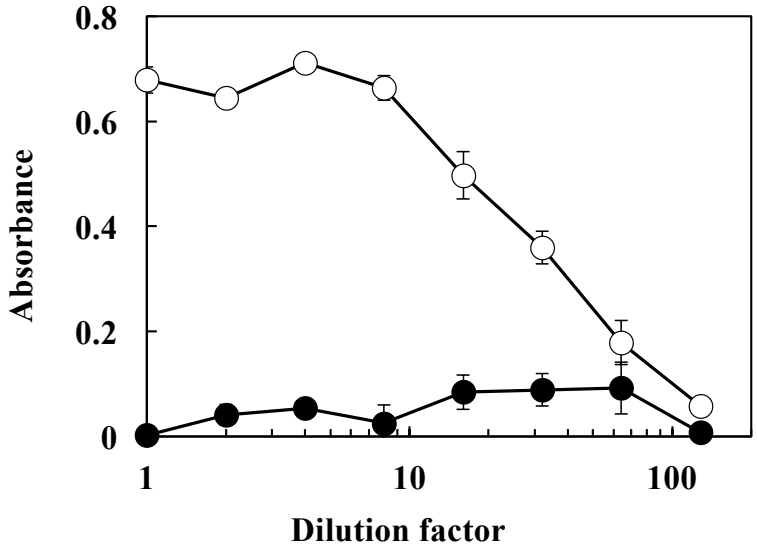

Fig. S5. Level of ILY in culture supernatants of HBP- (closed circles) and FBS- (open circles) cultured PC574 cells. Each culture supernatant normalized to OD_{600} was subjected to 2-fold serial dilutions in PBS until 128-fold and the levels of ILY in the diluted culture supernatants were determined by sandwich ELISA, as described in Fig S1.

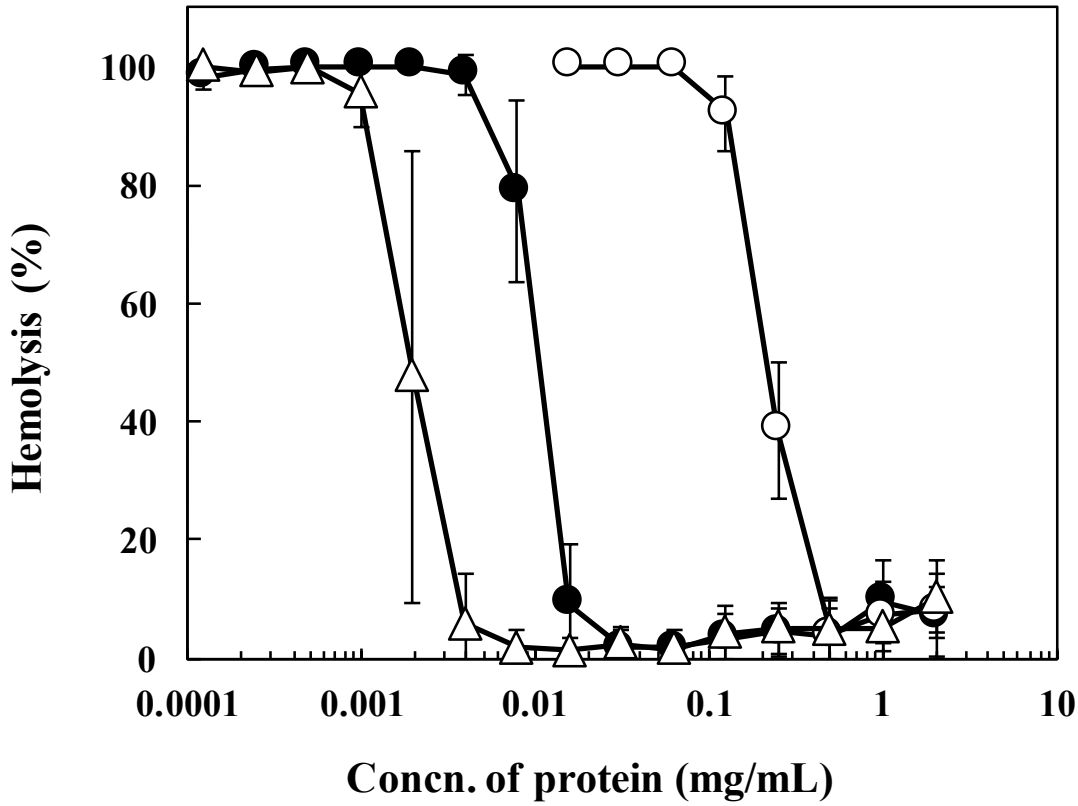

Fig. S6. ILY-neutralizing activity of human immunoglobulin-depleted plasma and purified immunoglobulins. To deplete the immunoglobulins in human plasma obtained from volunteer A, 1 mL of plasma diluted 2-fold in 20mM $NaPO_4$ buffer (pH 7.2) containing 150 mM NaCl was applied to a HiTrap™ Protein L column (GE Healthcare, Buckinghamshire, UK). The flow-through fraction was collected and then the collected fraction was applied to a HiTrap Protein G HP column (GE Healthcare). The flow-through fraction was applied to a HiTrap™ Protein L column again, and this flow-through fraction was used as the immunoglobulin-depleted plasma. Immunoglobulins bound on Protein L and Protein G columns was eluted in 100 mM Na-Citrate buffer (pH 2.5). Eluted immunoglobulins were combined and the buffer was exchanged for PBS, using a HiTrap Desalting column (GE Healthcare). Each 2.0 mg/mL of human plasma (closed circles), immunoglobulin-depleted plasma (open circles), or purified immunoglobulins (open triangles) was subjected to 2-fold serial dilutions up to 2^{14}-fold in PBS. ILY-neutralizing activity was measured as described in MATERIALS AND METHODS.