Fab Fragment of V_{H}H-based Antibody Netakimab: Crystal Structure and Modeling Interaction with Cytokine IL-17A.

Olga Kostareva 1,*, Ilya Kolyadenko 1, Andrey Ulitin 2, Victoria Ekimova 2, Stanislav Evdokimov 2, Maria Garber 1, Svetlana Tishchenko 1 and Azat Gabdulkhakov 1

1 Institute of Protein Research RAS, Institutskaya 4, Pushchino, Moscow region 142290, Russia; kolyadenko_ilya@mail.ru (I.K); garber@vega.protres.ru (M.G); sveta@vega.protres.ru (S.T); azat@vega.protres.ru (A.G.)

2 CJSC Biocad, ul.Svyazi., 34-A, p. Strelna, Saint-Petersburg, Leningrad region 198515, Russia; ulitin@biocad.ru (A.U); ekimova@biocad.ru (V.E); evdokimov@biocad.ru (S.E)

* Correspondence: oskostareva@gmail.com

Figure S1. Elution profiles of size-exclusion chromatography and SDS–PAGE gel of purified Fab (A) and V_{H}H domain (B). Lane M – molecular-weight marker.

Figure S2. Circular dichroism spectrum of VHH domain.
Figure S3. (A) Netakimab Fab fragment /IL-17A complex. Surface of the IL-17A dimer is shown (monomer A is dark blue, monomer B is yellow). Crystal structure of Fab fragment (light chain is colored green, heavy chain – gray). (B) Fab fragment CAT 2200/ IL-17A complex (PDB ID 2VXS). Monomer A of IL-17A is dark blue, monomer B is yellow. Light chain Fab fragment CAT 2200 of is colored green, heavy chain – gray.