

PRODUCT INFORMATION

|                              |  |
|------------------------------|--|
| Target                       | IL-7   |
| Synonyms                     | Interleukin-7;IL-7;IL7   |
| Description                  | Recombinant Human Interleukin-7 is produced by our E.coli expression system and the target gene encoding Asp26-His177 is expressed.  |
| Delivery                     | In Stock   |
| Uniprot ID                   | P13232   |
| Expression Host              | E.coli   |
| Tag                          |  |
| Molecular Characterization   | Not available  |
| Molecular Weight             | 17.5 KDa   |
| Purity                       | Greater than 95% as determined by reducing SDS-PAGE.   |
| Formulation & Reconstitution | Lyophilized from a 0.2 $\mu$ m filtered solution of 20mM PB, 300mM NaCl, pH 8.0.   |
| Storage & Shipping           | Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.  |
| Background                   | Human Interleukin 7 (IL-7) is a potent lymphoid cell growth factor stimulating the proliferation of lymphoid progenitors. IL7 can associate with the hepatocyte growth factor (HGF) to form a hybrid cytokine that functions as a pre-pro-B cell growth-stimulating factor. Human IL7 cDNA encodes a 177 amino acid precursor protein containing a 25 amino acid signal peptide and a 152 amino acid mature protein. Human and mouse IL7 share 65% sequence identity in the mature region and both exhibit cross-species activity. IL-7 signals via IL-7 receptor (IL7R) activating multiple pathways including Jak/STAT and PI3K/AKT, which regulate lymphocyte survival, glucose uptake, proliferation, and differentiation. IL-7 is also associated with cytoplasmic IL2-R gamma for signal transduction. |
| Usage                        | Research use only  |



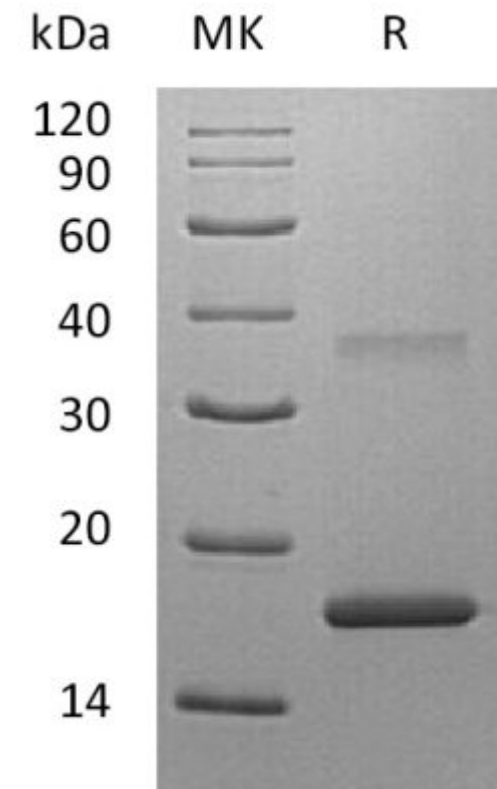


Figure 1. Greater than 95% as determined by reducing SDS-PAGE.

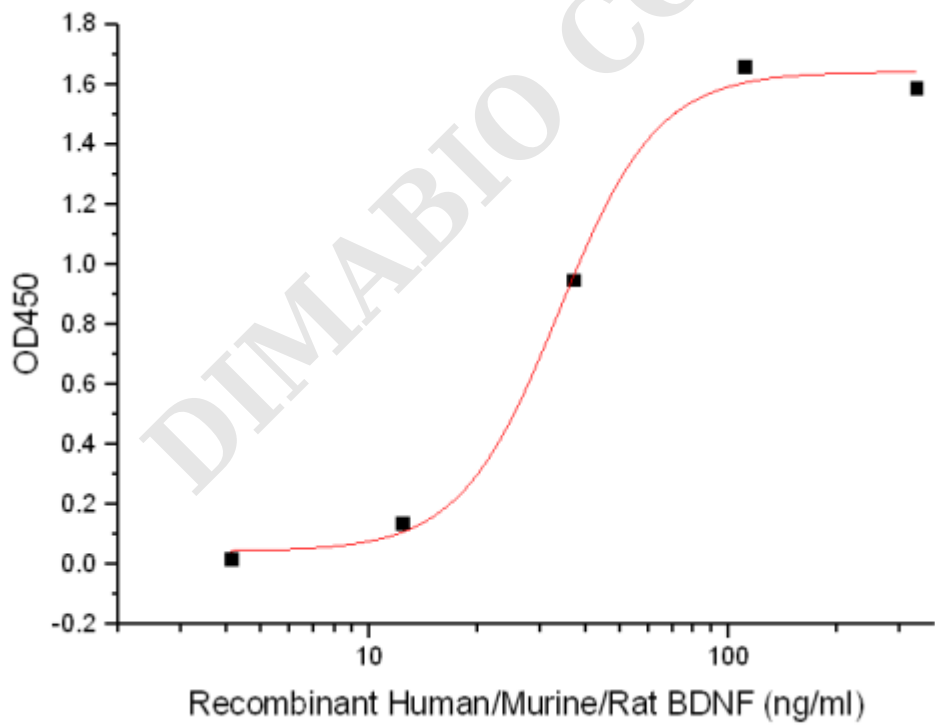


Figure 2. Measured in a cell proliferation assay using PHA-activated human peripheral blood lymphocytes (PBL). The ED50 for this effect is 0.02-0.08 ng/ml.



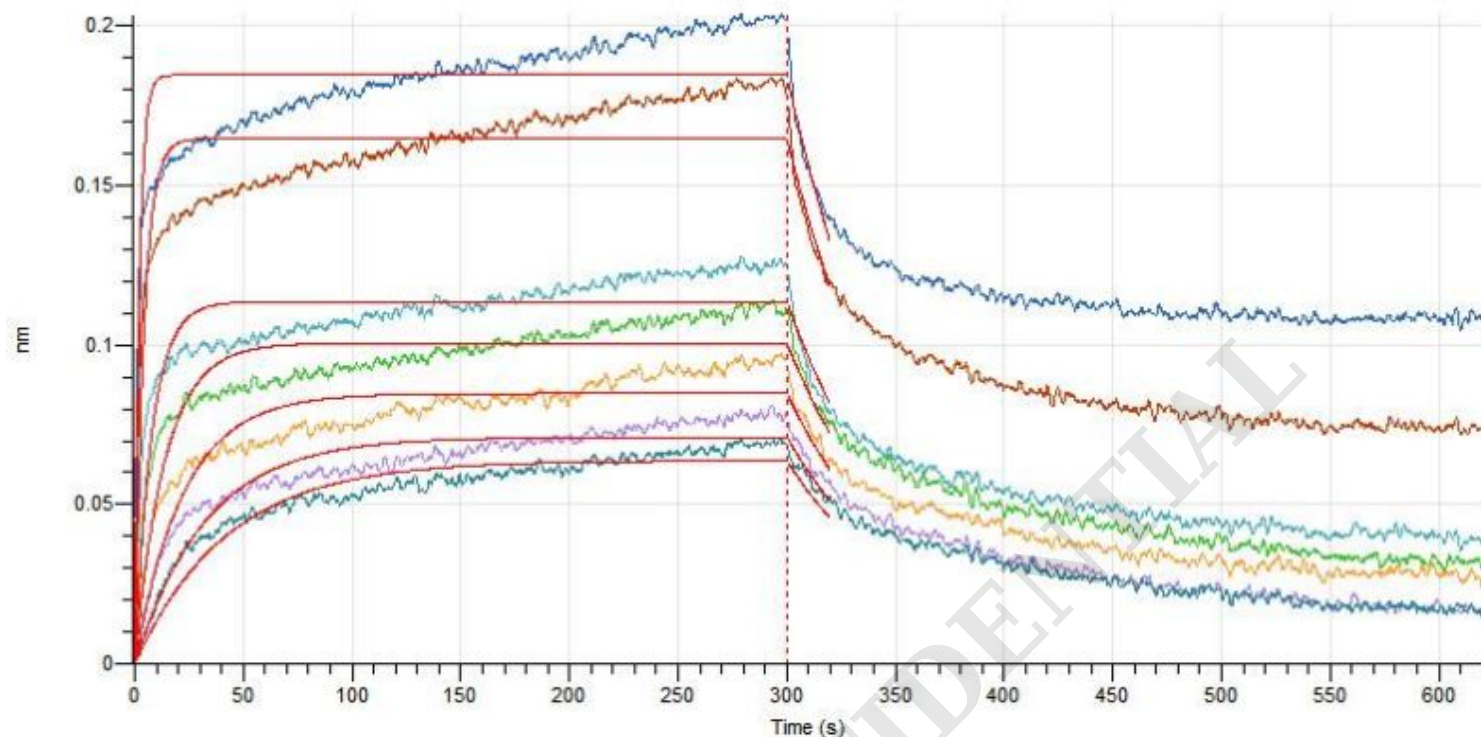


Figure 3. Loaded Human IL-7RA-His on HIS1K Biosensor, can bind Human IL-7 with an affinity constant of 15.04 nM as determined in BLI assay.

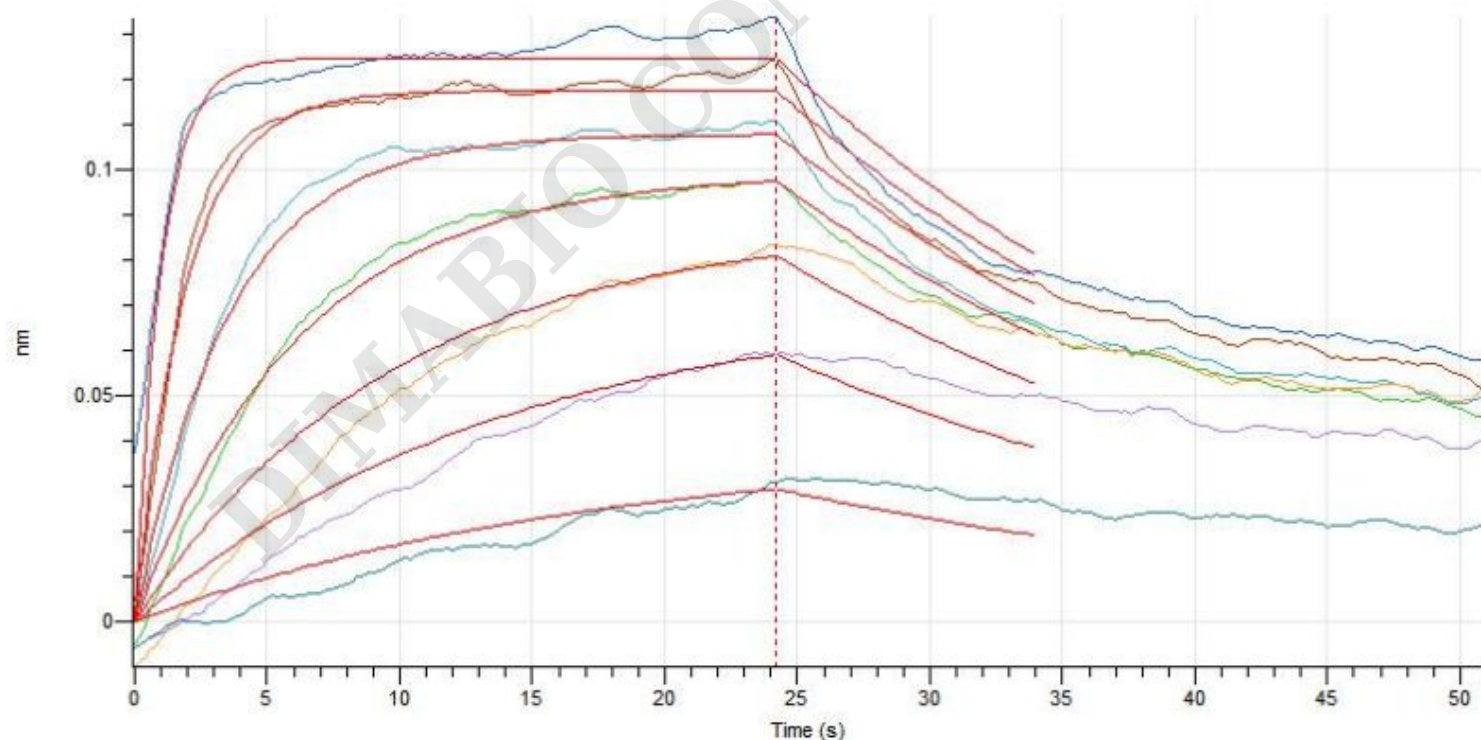


Figure 4. Loaded Human IL-7RA-Fc-His on HIS1K Biosensor, can bind Human IL-7 with an affinity constant of 18.59 nM as determined in BLI assay.



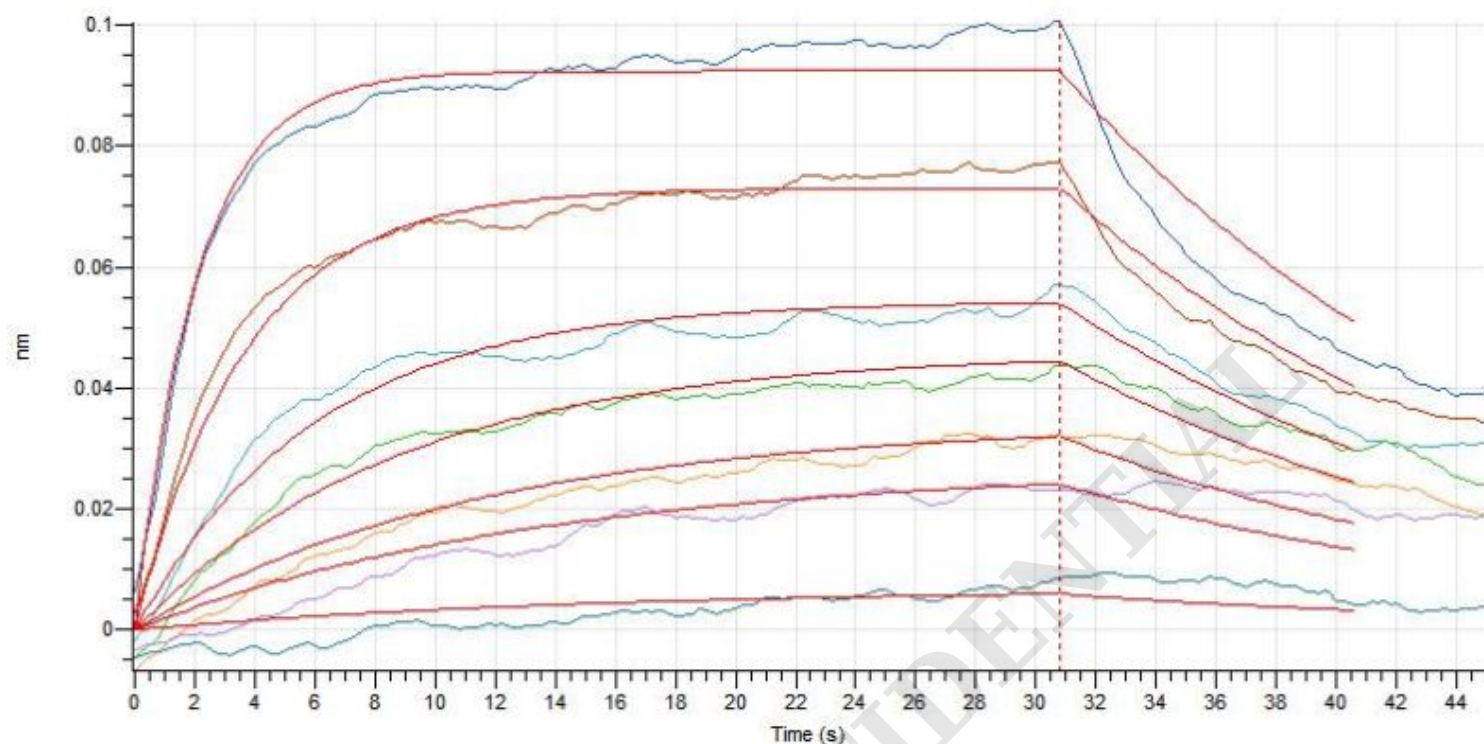


Figure 5. Loaded Mouse IL-7RA-Fc on Protein A Biosensor, can bind Human IL-7 with an affinity constant of 29.2 nM as determined in BLI assay.

