Biotinylated Recombinant Human IL-1ra/IL-1F3

Catalog Number: BT280

DESCRIPTION

Source	*E. coli*-derived human IL-1ra/IL-1F3 protein Accession # P18510
Structure / Form	Biotinylated via amines
Predicted Molecular Mass	17 kDa

SPECIFICATIONS

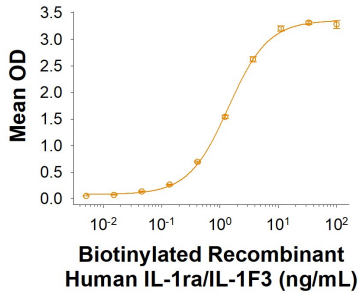
SDS-PAGE	18-23 kDa, under reducing conditions.
Activity	Measured by its binding ability in a functional ELISA. Biotinylated Recombinant Human IL-1ra/IL-1F3 (Catalog # BT280) binds Recombinant Human IL-1 RI Fc Chimera (Catalog # 11085-RI) with an ED_{50} of 0.350-4.20 ng/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 250 µg/mL in water.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

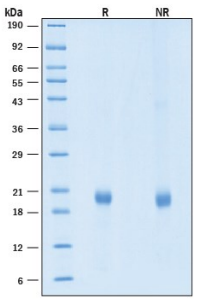
DATA

Binding Activity



Biotinylated Recombinant Human IL-1ra/IL-1F3 Protein Binding Activity. Biotinylated Recombinant Human IL-1ra/IL-1F3 Protein (Catalog # BT280) binds Recombinant Human IL-1 RI Fc Chimera (Catalog # 11085-RI) with an ED_{50} of 0.350-4.20 ng/mL.

SDS-PAGE



Biotinylated Recombinant Human IL-1ra/IL-1F3 Protein SDS-PAGE. 2 µg/lane of Biotinylated Recombinant Human IL-1ra/IL-1F3 Protein (Catalog # BT280) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 18-23 kDa, under reducing conditions.

BACKGROUND

IL-1ra was originally isolated from the urine of patients with monocytic leukemia and has also been purified from adherent monocytes. The naturally occurring, fully glycosylated form has an apparent molecular weight of about 25,000 Daltons. The protein shows 26% amino acid homology to IL-1β and 19% homology to IL-1α. It will compete with either factor for receptor binding, but does not interact with either one. Human IL-1ra will bind to both types of IL-1 receptor (I and II) on human cells, but reportedly will not block binding to the type II receptor on murine pre-B cell lines. The recombinant, non-glycosylated form of IL-1ra blocks binding of IL-1 to its receptor equally as well as the naturally-occurring, glycosylated form. The IL-1ra has been shown to block the inflammatory responses induced by IL-1 both *in vitro* and *in vivo*. Currently, pre-clinical and clinical studies are underway to test possible therapeutic applications for IL-1ra in the treatment of sepsis, rheumatoid arthritis and chronic myelogenous leukemia.

Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475