

DESCRIPTION

Source Chinese Hamster Ovary cell line, CHO-derived cynomolgus monkey IL-18 BP_a protein
Thr28-Pro207, with a C-terminal 6-His tag
Accession # XP_015290916.1

N-terminal Sequence Analysis Thr28

Structure / Form Monomer

Predicted Molecular Mass 20 kDa

SPECIFICATIONS

SDS-PAGE 54-60 kDa, reducing conditions

Activity Measured by its ability to inhibit the IL-18-induced response of KG-1 human acute myelogenous leukemia cells.
The ED₅₀ for this effect is 0.015-0.075 µg/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. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 500 µg/mL in PBS.

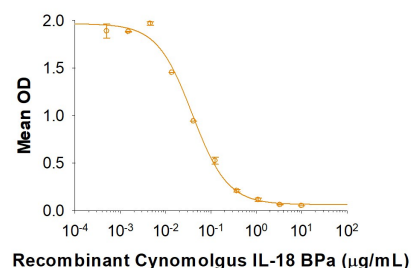
Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

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.

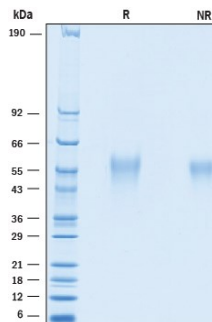
DATA

Bioactivity



Recombinant Cynomolgus Monkey IL-18 BP_a His-tag Protein Bioactivity Recombinant Cynomolgus Monkey IL-18 BP_a inhibits Recombinant Human IL-18-induced IFN-gamma secretion by KG-1 human acute myelogenous leukemia cells. The ED₅₀ for this effect is 0.015-0.075 µg/mL.

SDS-PAGE



Recombinant Cynomolgus Monkey IL-18 BP_a His-tag Protein SDS-PAGE 2 µg/lane of Recombinant Cynomolgus Monkey IL-18 BP_a was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 54-60 kDa.

BACKGROUND

Cynomolgus Interleukin 18 binding protein (IL-18 BP) is a 20 kDa secreted glycoprotein, which functions as an IL-18 antagonist by binding to IL-18 and blocking its biological activity (1). IL-18 BP bears no amino acid sequence homology to the membrane-associated IL-18 and IL-1 receptor proteins. Human IL-18BP encodes for at least four isoforms by alternative splicing. The IL-18 BP isoform a and c each contains one immunoglobulin (Ig)-like C2-type domain while isoform b and d lack a complete Ig domain. The complete Ig domain has been shown to be essential to the binding and neutralizing properties of the binding proteins (2). Cynomolgus IL-18BP_a shares 83% sequence identity with human and 62% with mouse IL-18BP_a, respectively. Several poxviruses also encode proteins with sequence similarity to IL-18 BP. Viral IL-18 BPs have been shown to bind and inhibit IL-18 responses and may be involved in modulating host immune responses. The expression of IL-18 BP is markedly upregulated by IFN-gamma, suggesting that IL-18 activity is modulated by a negative feedback mechanism mediated by IL-18 BP (3).

References:

1. Mühl, H. *et al.* (2000) Biochem. Biophys. Res. Commun. **267**:960.
2. Kim, S-H. *et al.* (2000) Proc. Nat. Acad. Sci. USA **97**:1190.
3. Calderara, S. *et al.* (2001) Virology **279**:22.