

## DESCRIPTION

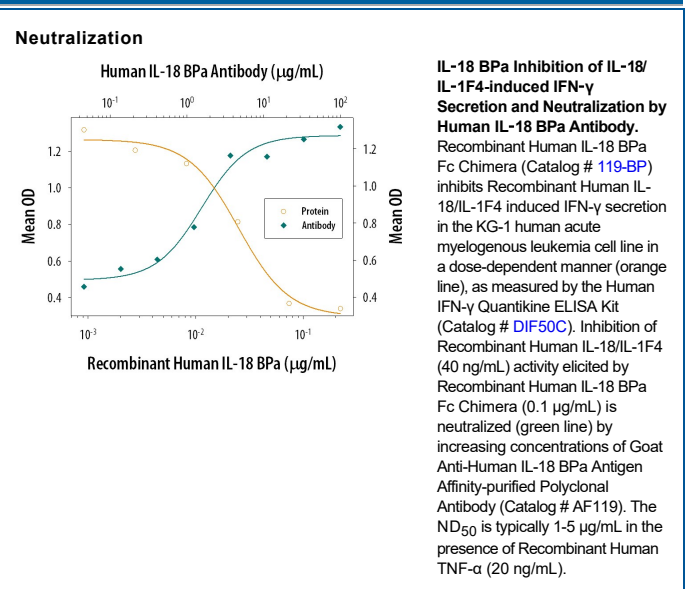
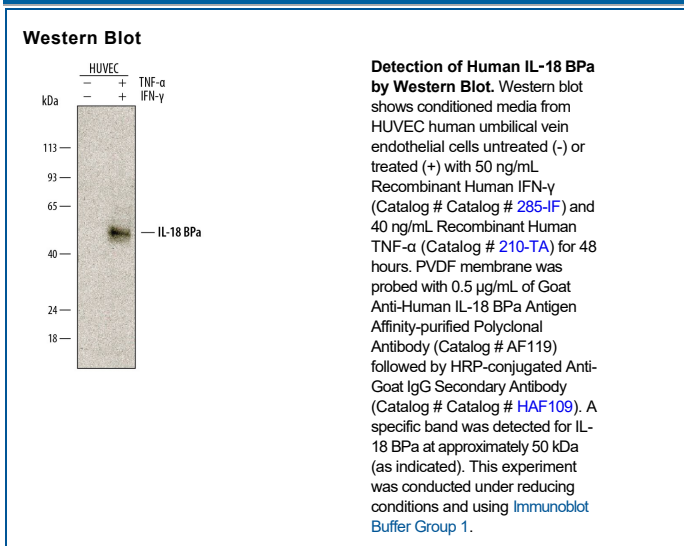
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human IL-18 BP <sub>a</sub> in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant human IL-18 BP <sub>a</sub> Thr31-Gly194 Accession # O95998
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

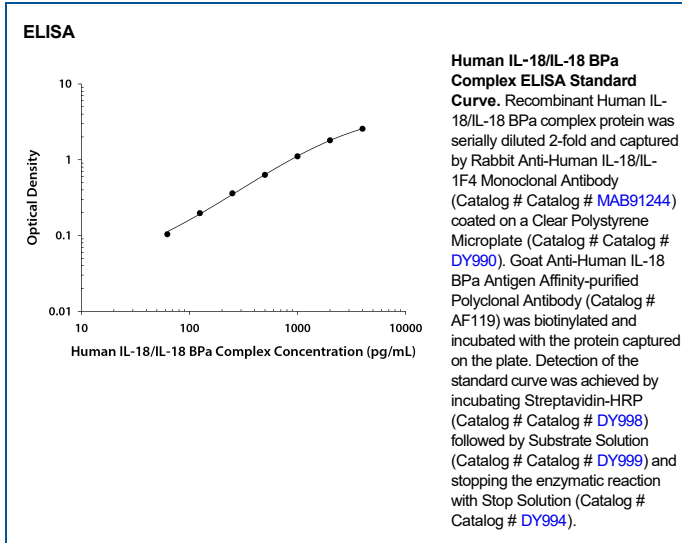
## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.5 µg/mL	See Below
<b>Neutralization</b>	Measured by its ability to neutralize IL-18 BP <sub>a</sub> inhibition of IL-18/IL-1F4-induced IFN-γ secretion in the KG-1 human acute myelogenous leukemia cell line. The Neutralization Dose (ND <sub>50</sub> ) is typically 1-5 µg/mL in the presence of 0.1 µg/mL Recombinant Human IL-18 BP <sub>a</sub> Fc Chimera, 40 ng/mL Recombinant Human IL-18/IL-1F4, and 20 ng/mL Recombinant Human TNF-α.	
<b>ELISA</b>	This antibody functions as an ELISA detection antibody when paired with Rabbit Anti-Human IL-18/IL-1F4 Monoclonal Antibody (Catalog # <a href="#">MAB91244</a> ).  <i>This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Human IL-18/IL-18 BP<sub>a</sub> Complex DuoSet ELISA Kit (Catalog # <a href="#">DY8936-05</a>) for convenient development of a sandwich ELISA or the Human IL-18 BP<sub>a</sub> Quantikine ELISA Kit (Catalog # <a href="#">DBP180</a>) for a complete optimized ELISA.</i>	

## DATA





#### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<p><b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b></p> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

Interleukin 18 binding protein (IL-18 BP) is a secreted glycoprotein, which functions as an IL-18 antagonist by binding to IL-18 and blocking its biological activity. IL-18 BP bears no amino acid sequence homology to the membrane-associated IL-18 and IL-1 receptor proteins. The gene for human IL-18 BP has been localized to chromosome 11q13. It encodes for at least four isoforms by alternative splicing. The IL-18 BP isoforms a and c each contain one immunoglobulin (Ig)-like C2-type domain while isoforms 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. Two isoforms of mouse IL18 BP (c and d) containing the complete Ig domain have also been isolated and shown to neutralize IL-18 bioactivity. Human and mouse IL-18 BPs share approximately 61% amino acid sequence identity. Several poxviruses also encode proteins with sequence similarity to the human and mouse 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 up-regulated by IFN- $\gamma$ , suggesting that IL-18 activity is modulated by a negative feedback mechanism mediated by IL-18 BP.

#### 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.