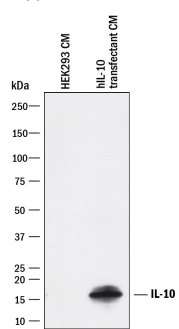
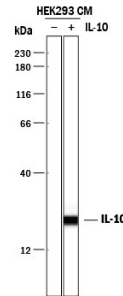

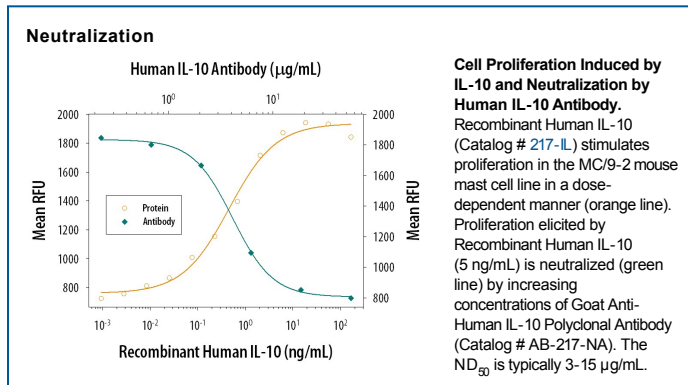


| DESCRIPTION | |
|---------------------------|--|
| Species Reactivity | Human |
| Specificity | Detects human IL-10 in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant equine IL-10, recombinant canine IL-10, recombinant porcine IL-10, and recombinant feline IL-10 is observed, and less than 10% cross-reactivity with recombinant mouse IL-10, recombinant rat IL-10, and recombinant cotton rat IL-10 is observed. |
| Source | Polyclonal Goat IgG |
| Purification | Protein A or G purified |
| Immunogen | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human IL-10 Ser19-Asn178 Accession # P22301 |
| Endotoxin Level | <0.10 EU per 1 µg of the antibody by the LAL method. |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. |

| APPLICATIONS | | | | | | | |
|--|--|---------------------------|--------|---------|-----------|----------|-----------|
| Please Note: Optimal dilutions should be determined by each laboratory for each application. <i>General Protocols</i> are available in the <i>Technical Information</i> section on our website. | | | | | | | |
| | <table border="1"> <thead> <tr> <th>Recommended Concentration</th> <th>Sample</th> </tr> </thead> <tbody> <tr> <td>1 µg/mL</td> <td>See Below</td> </tr> <tr> <td>10 µg/mL</td> <td>See Below</td> </tr> </tbody> </table> | Recommended Concentration | Sample | 1 µg/mL | See Below | 10 µg/mL | See Below |
| Recommended Concentration | Sample | | | | | | |
| 1 µg/mL | See Below | | | | | | |
| 10 µg/mL | See Below | | | | | | |
| Western Blot | 1 µg/mL | | | | | | |
| Simple Western | 10 µg/mL | | | | | | |
| Neutralization | Measured by its ability to neutralize IL-10-induced proliferation in the MC/9-2 mouse mast cell line [Thompson-Snipes, L. <i>et al.</i> (1991) <i>J. Exp. Med.</i> 173 :507]. The Neutralization Dose (ND ₅₀) is typically 3-15 µg/mL in the presence of 5 ng/mL Recombinant Human IL-10. | | | | | | |

| DATA | |
|---|---|
| <p>Western Blot</p>  <p>Detection of Human IL-10 by Western Blot. Western blot shows conditioned media of HEK293 human embryonic kidney cell line either mock transfected or transfected with human IL-10. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human IL-10 Polyclonal Antibody (Catalog # AB-217-NA) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for IL-10 at approximately 16 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p> | <p>Simple Western</p>  <p>Detection of Human IL-10 by Simple Western™. Simple Western lane view shows conditioned media of HEK293 human embryonic kidney cell line either mock transfected or transfected with human IL-10, loaded at 0.2 mg/mL. A specific band was detected for IL-10 at approximately 23 kDa (as indicated) using 10 µg/mL of Goat Anti-Human IL-10 Polyclonal Antibody (Catalog # AB-217-NA) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.</p>  |



| PREPARATION AND STORAGE | |
|--------------------------------|---|
| Reconstitution | Reconstitute at 1 mg/mL in sterile 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. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

BACKGROUND

Interleukin 10, also known as cytokine synthesis inhibitory factor (CSIF), is the charter member of the IL-10 family of α -helical cytokines that also includes IL-19, IL-20, IL-22, IL-24, and IL-26/AK155 (1, 2). IL-10 is secreted by many activated hematopoietic cell types as well as hepatic stellate cells, keratinocytes, and placental cytotrophoblasts (2 - 5). Mature human IL-10 shares 72%-86% amino acid sequence identity with bovine, canine, equine, feline, mouse, ovine, porcine, and rat IL-10. Whereas human IL-10 is active on mouse cells, mouse IL-10 does not act on human cells (6, 7). IL-10 is a 178 amino acid molecule that contains two intrachain disulfide bridges and is expressed as a 36 kDa noncovalently associated homodimer (6, 8, 9). The IL-10 dimer binds to two IL-10 R α /IL-10 R1 chains, resulting in recruitment of two IL-10 R β /IL-10 R2 chains and activation of a signaling cascade involving JAK1, TYK2, and STAT3 (10). IL-10 R β does not bind IL-10 by itself but is required for signal transduction (1). IL-10 R β also associates with IL-20 R α , IL-22 R α , or IL-28 R α to form the receptor complexes for IL-22, IL-26, IL-28, and IL-29 (11-13). IL-10 is a critical molecule in the control of viral infections and allergic and autoimmune inflammation (14-16). It promotes phagocytic uptake and Th2 responses but suppresses antigen presentation and Th1 proinflammatory responses (2).

References:

1. Pestka, S. *et al.* (2004) *Annu. Rev. Immunol.* **22**:929.
2. O'Garra, A. and P. Vieira (2007) *Nat. Rev. Immunol.* **7**:425.
3. Mathurin, P. *et al.* (2002) *Am. J. Physiol. Gastrointest. Liver Physiol.* **282**:G981.
4. Grewe, M. *et al.* (1995) *J. Invest. Dermatol.* **104**:3.
5. Szonyi, B.J. *et al.* (1999) *Mol. Hum. Reprod.* **5**:1059.
6. Vieira, P. *et al.* (1991) *Proc. Natl. Acad. Sci.* **88**:1172.
7. Hsu, D.-H. *et al.* (1990) *Science* **250**:830.
8. Windsor, W.T. *et al.* (1993) *Biochemistry* **32**:8807.
9. Syto, R. *et al.* (1998) *Biochemistry* **37**:16943.
10. Kotenko, S.V. *et al.* (1997) *EMBO J.* **16**:5894.
11. Kotenko, S.V. *et al.* (2000) *J. Biol. Chem.* **276**:2725.
12. Hor, S. *et al.* (2004) *J. Biol. Chem.* **279**:33343.
13. Sheppard, P. *et al.* (2003) *Nat. Immunol.* **4**:63.
14. Fitzgerald, D.C. *et al.* (2007) *Nat. Immunol.* **8**:1372.
15. Wu, K. *et al.* (2007) *Cell. Mol. Immunol.* **4**:269.
16. Blackburn, S.D. and E.J. Wherry (2007) *Trends Microbiol.* **15**:143.