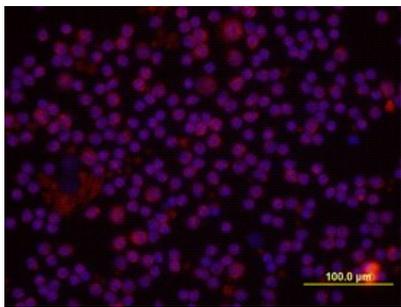


DESCRIPTION	
Species Reactivity	Porcine
Specificity	Detects porcine IL-10 in direct ELISAs and Western blots. In direct ELISAs, approximately 30% cross-reactivity with recombinant human IL-10, recombinant canine IL-10, recombinant cotton rat IL-10 and recombinant viral IL-10 is observed, 20% cross-reactivity with recombinant mouse IL-10, recombinant feline IL-10 and recombinant equine IL-10 is observed and less than 5% cross-reactivity with recombinant rat IL-10 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant porcine IL-10 Ser19-Asn175 Accession # Q29055
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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 <i>Technical Information</i> section on our website.		
	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Porcine IL-10 (Catalog # 693-PI)
Immunocytochemistry	5-15 µg/mL	See Below

DATA	
<p>Immunocytochemistry</p> 	<p>IL-10 in Porcine PBMCs. IL-10 was detected in immersion fixed porcine peripheral blood mononuclear cells (PBMCs) using 10 µg/mL Porcine IL-10 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF693) for 3 hours at room temperature. Cells were stained with the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Non-adherent Cells.</p>

PREPARATION AND STORAGE	
Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	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
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

IL-10, initially designated cytokine synthesis inhibitory factor (CSIF), was originally identified as a product of murine T helper 2 (Th2) clones that inhibited the cytokine production by Th1 clones which are dependent upon stimulation with antigen in the presence of antigen presenting cells (APC). The human homologue of murine IL-10 was subsequently cloned by cross-hybridization. Human and murine IL-10 are 81% and 73% homologous at the nucleotide and amino acid level, respectively. Both murine and human IL-10 are also highly homologous with a previously uncharacterized open reading frame in the Epstein-Bar virus (EBV) genome, BCRF1. The BCRF1 gene product is now designated viral IL-10. Murine IL-10 is produced by Th2 cells, activated fetal thymocytes, macrophages, keratinocytes, and LY-1⁺ (CD5⁺) and normal B cells. Human IL-10 has cross-species activities and is active on mouse cells. Murine IL-10 is species-specific and does not act on human cells. Porcine IL-10 is 71% and 78% homologous with mouse and human IL-10, respectively.

IL-10 is a pleiotropic cytokine that can exert either immunostimulatory or immunosuppressive effects on a variety of cell types. It is a potent immunosuppressant of macrophage functions. *In vitro*, IL-10 can inhibit the accessory function and antigen-presenting capacity of monocytes by, among other effects, down-regulating class II MHC expression. Thus, IL-10 can inhibit monocyte/macrophage-dependent, antigen stimulated cytokine synthesis (especially IFN- γ) by human PBMC and NK, and mouse Th1 cells. Additionally, IL-10 is a potent inhibitor of monocyte/macrophage activation and its resultant cytotoxic effects. As an immunostimulatory cytokine, IL-10 can act on B cells to enhance their viability, cell proliferation, Ig secretion, and class II MHC expression. Aside from B lymphocytes, IL-10 is also a growth co-stimulator for thymocytes and mast cells, as well as an enhancer of cytotoxic T cell development.

References:

1. Moore, K.W. *et al.* (1993) *Annu. Rev. Immunol.* **11**:165.