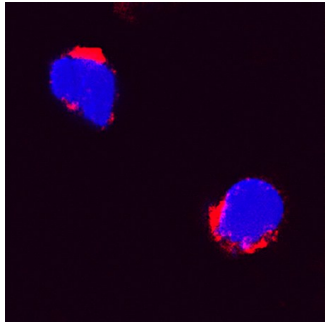
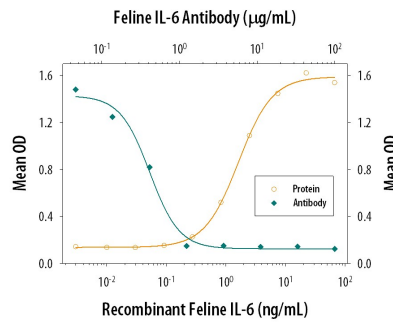


DESCRIPTION	
<b>Species Reactivity</b>	Feline
<b>Specificity</b>	Detects feline IL-6 in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant canine IL-6, recombinant porcine IL-6 and recombinant human IL-6 is observed and less than 10% cross-reactivity with recombinant mouse IL-6 and recombinant rat IL-6 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant feline IL-6 Thr28-Met208 (Glu133Lys) Accession # P41683
<b>Endotoxin Level</b>	<0.20 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 as a 0.2 µm filtered solution in PBS.

APPLICATIONS		
<b>Please Note:</b> 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.		
	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Feline IL-6 (Catalog # 2305-FL)
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Neutralization</b>	Measured by its ability to neutralize IL-6-induced proliferation in the T1165.85.2.1 mouse plasmacytoma cell line. Nordan, R. P. and M. Potter (1986) <i>Science</i> <b>233</b> :566. The Neutralization Dose (ND <sub>50</sub> ) is typically 0.2-0.6 µg/mL in the presence of 10 ng/mL Recombinant Feline IL-6.	

DATA	
<p><b>Immunocytochemistry</b></p>  <p><b>IL-6 in Feline PBMCs.</b> IL-6 was detected in immersion fixed feline peripheral blood mononuclear cells (PBMCs) using Goat Anti-Feline IL-6 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2305) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for <a href="#">Fluorescent ICC Staining of Non-adherent Cells</a>.</p>	<p><b>Neutralization</b></p>  <p><b>Cell Proliferation Induced by IL-6 and Neutralization by Feline IL-6 Antibody.</b> Recombinant Feline IL-6 (Catalog # 2305-FL) stimulates proliferation in the T1165.85.2.1 mouse plasmacytoma cell line in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Feline IL-6 (10 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Feline IL-6 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2305). The ND<sub>50</sub> is typically 0.2-0.6 µg/mL.</p>

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>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <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 6 (IL-6) is a pleiotropic  $\alpha$ -helical cytokine that plays important roles in acute phase reactions, inflammation, hematopoiesis, bone metabolism, and cancer progression. IL-6 activity is central to the transition from acute inflammation to either acquired immunity or chronic inflammatory disease. It is secreted by multiple cell types as a 22 kDa-28 kDa phosphorylated and variably glycosylated molecule (1-4). Mature feline IL-6 is 181 amino acids (aa) in length and shares 76%, 58%, 39%, and 41% aa sequence identity with canine, human, mouse, and rat IL-6, respectively (5). IL-6 induces signaling through a cell surface heterodimeric receptor complex composed of a ligand binding subunit (IL-6 R) and a signal transducing subunit (gp130). IL-6 binds to IL-6 R, triggering IL-6 R association with gp130 and gp130 dimerization (6). gp130 is also a component of the receptors for CLC, CNTF, CT-1, IL-11, IL-27, LIF, and OSM (7). Soluble forms of IL-6 R are generated by both alternate splicing and proteolytic cleavage (3). In a mechanism known as trans-signaling, complexes of soluble IL-6 and IL-6 R elicit responses from gp130-expressing cells that lack cell surface IL-6 R (3). Trans-signaling enables a wider range of cell types to respond to IL-6, as the expression of gp130 is ubiquitous while that of IL-6 R is predominantly restricted to hepatocytes, leukocytes, and lymphocytes (3). Soluble splice forms of gp130 block trans-signaling from IL-6/IL-6 R but not from other cytokines that utilize gp130 as a coreceptor (4, 8).

**References:**

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