Canine IL-6
(recombinant)

**Alias:** none  **Catalog #:** 6417
**Size:** 5 µg  **Research Use Only**

**Molecular Weight:** 21.0 kDa
**Source:** Yeast. Recombinant Canine IL-6 was produced in yeast and, therefore, does not have endotoxin. It is naturally folded and post-translationally modified.

**Formulation:** Lyophilized without carrier protein.
**Purity:** >95% as visualized by SDS-PAGE analysis.
**Purification:** Ion-exchange chromatography.
**Bioactivity:** In testing
**Entrez Gene ID:** 403985
**Number of Amino Acids:** 187

**Amino Acid Sequence:**
```
FPTPGPLAGDSKDDATNSNLPLTSANKVEELIKYILGKISALRKEMCDKFNKCEDSKEALAENNLHPK
LEKGKDCFGFQFNQETCLTRITTLVEFQLHLNILQNNYEGDKENVKSVHMSTKILVQMLKSKVKNQDE
VTPPDPTTDSLQLSQDEWLKHTTIIHILRSLEDFLQSLRAVRIM
```
**Country of Origin:** USA
**Reconstitution:** Reconstitute with sterile phosphate-buffered saline containing at least 0.1% carrier protein.
**Stability and Storage:** Stable for up to twelve months from date of receipt at -20°C. Stable for at least 3 months when stored in working aliquots with a carrier protein at -20°C. Avoid repeated freeze/thaw cycles.

**Applications:** The Canine IL-6 protein can be used in cell culture, as an IL-6 ELISA Standard, and as a Western Blot Control.

**Background:** Interleukin-6 (IL-6) is an interleukin that acts as both a pro-inflammatory and anti-inflammatory cytokine. It is secreted by T cells and macrophages to stimulate immune response to trauma, especially burns or other tissue damage leading to inflammation. IL-6 is also produced from muscle, and is elevated in response to muscle contraction. It is significantly elevated with exercise, and precedes the appearance of other cytokines in the circulation. Osteoblasts secrete IL-6 to stimulate osteoclast formation. Smooth muscle cells in the tunica media of many blood vessels also produce IL-6 as a pro-inflammatory cytokine. The role of IL-6 as an anti-inflammatory cytokine is mediated through its inhibitory effects on TNF-alpha and IL-1, and activation of IL-1ra and IL-10.