**Swine IL-12 p40**

(recombinant)

**Alias:** none  **Catalog #:** 6577  
**Size:** 5 ug  **Research Use Only**

**Molecular Weight:** 34.3 kDa  
**Source:** Yeast. Recombinant Swine IL-12 p40 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:** 397076  
**Number of Amino Acids:** 302  
**Amino Acid Sequence:** IWELEKNVYV VELDWYPNAP GEMVVLTCNT PEEDGITWTS DQSSEVLGTG KTLTIHVKEF GDAQYTCRK GGAVALSQQSL LLHKKEDGIW STDILKDQKE PKNSFLKCE AKNYSFRFTC WWLTAISTDL KFSVKSSRGS TDPGRVTGCG ATLSEDLGEY KKYRVECQEG SACPAAEESL PIEVVELAVH KLKYENYTSS FFIRDIKPD PPKNLQNLPL KNSRHVEISW EY

**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 Swine IL-12/IL-23 p40 protein can be used in cell culture, as an IL-12/IL-23 p40 ELISA Standard, and as a Western Blot Control.

**Background:** IL-12 is a member of the IL-12 family, which includes IL-12, IL-23, IL-27, and IL-35. Like other IL-12 family members, IL-12 is a heterodimeric cytokine. IL-12 is encoded by two separate genes, IL-12A (p35) and IL-12B (p40). The active heterodimer and a homodimer of p40 are formed following protein synthesis. The IL-12 p40 subunit also serves as a subunit of IL-23. IL-12 is involved in the differentiation of naive T cells into Th1 cells. It is known as a T cell-stimulating factor, which can stimulate the growth and function of T cells. It stimulates the production of IFN-gamma and TNF-alpha from T and natural killer (NK) cells and reduces IL-4 mediated suppression of IFN-gamma.