

## Product Information

### Interleukin-17A human, recombinant expressed in *Escherichia coli*

Catalog Number **I3525**  
Storage Temperature  $-20\text{ }^{\circ}\text{C}$

Synonyms: IL-17, CTLA-8

#### Product Description

Interleukin 17 (IL-17), initially known as CTLA-8, was thought to be a T cell-expressed polypeptide that appeared to be involved in the regulation of the hematopoietic system.<sup>1-3</sup> It shared a surprising 72% amino acid sequence homology with the thirteenth open reading frame of *Herpesvirus saimiri*, a virus that causes lymphoproliferative disease in New World primates.<sup>3-5</sup> It was believed this similarity was due to the virus incorporating the mammalian cytokine gene sometime in the distant past to provide itself a survival advantage.<sup>5</sup>

Today, IL-17 represents a family of structurally-related cytokines that share a highly conserved C-terminal region, but differ from one another in their N-terminal regions and in their distinct biological roles. The six known members of this family, IL-17A through IL-17F, are secreted as homodimers. IL-17A exhibits cross-species bioactivity between human and murine cells.

This recombinant, human IL-17A product is lyophilized from a solution with no additives.

Molecular mass: 31 kDa disulfide-linked homodimer of two 136 amino acid polypeptide chains.

Purity:  $\geq 98\%$  (SDS-PAGE)

The biological activity of recombinant human IL-17A is measured by its ability to induce IL-6 production by NHDF cells. The biological activity is also determined by the dose-dependent induction of IL-6 in primary human foreskin fibroblast. The expected  $\text{ED}_{50}$  is  $\leq 2.0\text{ ng/ml}$ , corresponding to a specific activity of  $\geq 5 \times 10^5\text{ units/mg}$ .

#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### Preparation Instructions

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1–1.0 mg/ml. **Do not vortex.**

#### Storage/Stability

Store the product at  $-20\text{ }^{\circ}\text{C}$ .

After reconstitution, store at  $2\text{--}8\text{ }^{\circ}\text{C}$  for a maximum of one week. For extended storage, freeze in working aliquots containing a carrier protein (e.g., 0.1% BSA) at  $-70\text{ }^{\circ}\text{C}$  or  $-20\text{ }^{\circ}\text{C}$ . Repeated freezing and thawing is not recommended.

#### References

1. Yao, Z. *et al.*, J. Immunol., **155**, 5483 (1995).
2. Broxmeyer, H.E., J. Exp. Med., **183**, 2411 (1996).
3. Fossiez, F. *et al.*, J. Exp. Med., **183**, 2593 (1996).
4. Rouvier, E. *et al.*, J. Immunol., **150**, 5445 (1993).
5. Yao, Z. *et al.*, Immunity, **3**, 811 (1995).

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