

### General Information

|                            |  |
|----------------------------|--|
| Synonyms                   | IL17; IL-17; IL17A; IL-17A; CTLA8; CTLA-8; Cytotoxic T-lymphocyte-associated antigen 8 |
| Accession #                | Q62386   |
| Source                     | Human embryonic kidney cell, HEK293-derived mouse IL-17/IL-17A protein                 |
|                            | Ala26-Ala158   |
| Predicted Molecular weight | 15.0 kDa   |

### Components and Storage

|             |  |
|-------------|--|
| Formulation | Solution protein.  |
|             | Dissolved in sterile PBS buffer.   |
|             | This solution can be diluted into other aqueous buffers. Centrifuge the vial prior to opening. |

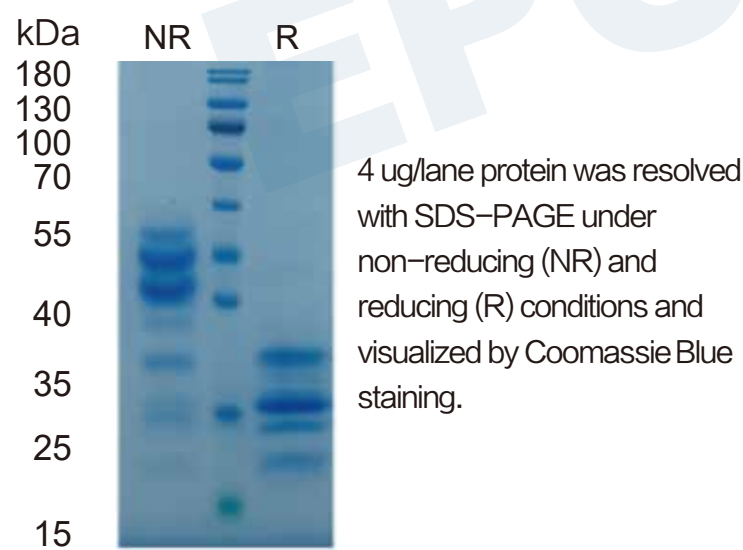
|                       |  |
|-----------------------|--|
| Storage and Stability | Avoid repeated freeze-thaw cycles.                                   |
|                       | It is recommended that the protein be aliquoted for optimal storage. |
|                       | 12 months from date of receipt, -20 to -70 ° C as supplied.          |

|          |                       |
|----------|-----------------------|
| Shipping | Shipping with dry ice |
|----------|-----------------------|

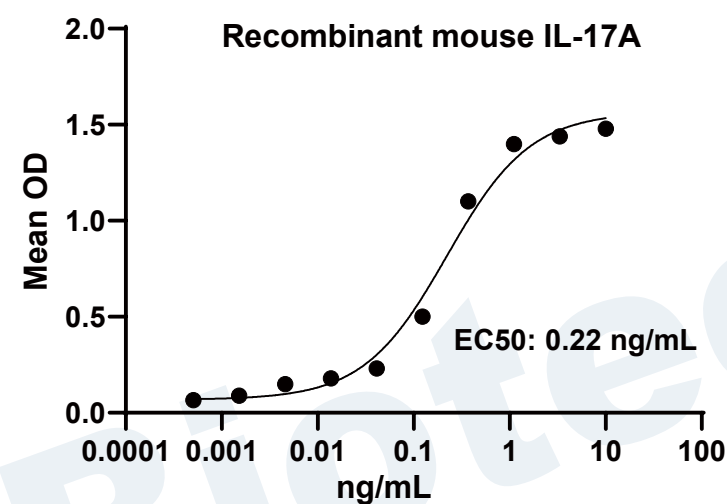
### Quality

|                 |   |
|-----------------|---|
| Purity          | > 95%, determined by SDS-PAGE   |
| Endotoxin Level | <0.010 EU per 1 ug of the protein by the LAL method   |
| Activity        | Measured by its ability to induce IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells. |
|                 | The EC50 for this effect is 0.12-1.25 ng/mL.  |

### SDS-PAGE



### Bioactivity



Recombinant mouse IL-17A (Catalog # MF-1017A) induces IL-6 secretion by NIH-3T3 mouse embryonic fibroblast cells.

### Background

**Interleukin-17A (IL-17A)**, also known as CTLA-8, is a 15–20 kDa glycosylated cytokine that plays an important role in anti-microbial and chronic inflammation. The six IL-17 cytokines (IL-17A–F) are encoded by separate genes but adopt a conserved cystine knot fold (1, 2). Mature mouse IL-17A shares 61% and 89% amino acid sequence identity with human and rat IL-17A, respectively (3, 4). IL-17A is secreted by Th17 cells, gamma / delta T cells, iNKT cells, NK cells, LTi cells, neutrophils, and intestinal Paneth cells (2). It forms disulfide-linked homodimers as well as disulfide-linked heterodimers with IL-17F (5, 6). IL-17A exerts its effects through the transmembrane IL-17RA in complex with IL-17RC or IL-17RD (7, 8). Both IL-17RA and IL-17RC are required for responsiveness to heterodimeric IL-17A/F (7). IL-17A promotes protective mucosal and epidermal inflammation in response to microbial infection (9–12). IL-17A/F likewise induces neutrophil migration, but IL-17F does not (11). IL-17A additionally enhances the production of inflammatory mediators by rheumatoid synovial fibroblasts and contributes to TNF-alpha induced shock (Fossiez, 14). In contrast, it can protect against the progression of colitis by limiting chronic inflammation (12). IL-17A encourages the formation of autoreactive germinal centers and exacerbates the onset and progression of experimental models of autoimmunity (15,16). IL-17A has been shown to exert either tumorigenic or anti-tumor effects (17, 18).

### Reference

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