

**DESCRIPTION**

**Source** *E. coli*-derived  
Thr125-Asp258, with an N-terminal Met and 6-His tag  
Accession # O75973

**N-terminal Sequence Analysis** Met

**Structure / Form** Noncovalently-linked homotrimer

**Predicted Molecular Mass** 16 kDa

**SPECIFICATIONS**

**SDS-PAGE** 13 kDa, reducing conditions

**Activity** Measured by its binding ability in a functional ELISA.  
When Recombinant Human C1qTNF14/C1qL1 is immobilized at 1 µg/mL, 100 µL/well, the concentration of Recombinant Human BAI3 (Catalog # 9106-BA) that produces 50% of the optimal binding response is approximately 0.4-2.4 µg/mL

**Endotoxin Level** <0.10 EU per 1 µg of the protein by the LAL method.

**Purity** >85%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

**Formulation** Lyophilized from a 0.2 µm filtered solution in Tris, NaCl and TCEP. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

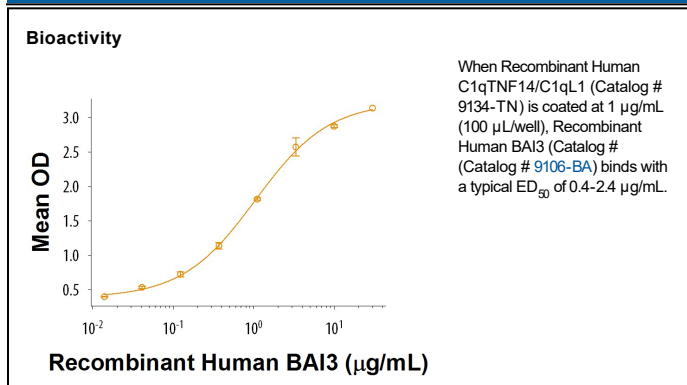
**Reconstitution** Reconstitute at 1 mg/mL in water.

**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

**DATA**



**BACKGROUND**

C1qTNF14 (CTRP14), also known as C1qL1, is an approximately 30 kDa member of the C1q family of secreted proteins (1, 2). Mature human C1qTNF14 contains a collagen-like region and one C1q-like domain and can form disulfide-linked heteromers with C1qTNF11/C1qL4 (3, 4). Within the C1q-like domain, human C1qTNF14 shares 100% aa sequence identity with mouse and rat C1qTNF14. C1qTNF14 is expressed in the inferior olive, hippocampus, and cerebral cortex (5). Similarly to C1qTNF13/C1qL3, C1qTNF10/C1qL2, and C1qTNF11/C1qL4, C1qTNF14 binds to BAI3 in the cerebral cortex and on cerebellar Purkinje cells (5-8). C1qTNF14/C1qL1 binding to BAI3 induces the formation and maintenance of excitatory synapses between climbing fibers and parallel fibers with Purkinje cells (5, 7).

**References:**

1. Grebrehiet, B. *et al.* (2012) *Front. Immunol.* **5**:3.
2. Yuzaki, M. (2010) *Eur. J. Neurosci.* **32**:191.
3. Ressler, S. *et al.* (2015) *Structure* **23**:688.
4. Wei, Z. *et al.* (2013) *J. Biol. Chem.* **288**:10214.
5. Sigoillot, S.M. *et al.* (2015) *Cell Rep.* **10**:820.
6. Lanoue, V. *et al.* (2013) *Mol. Psychiatry* **18**:943.
7. Kakegawa, W. *et al.* (2015) *Neuron* **85**:316.
8. Bolliger, M.F. *et al.* (2011) *Proc. Natl. Acad. Sci. USA* **108**:2534.