# Recombinant Human C1qL1

Catalog Number: 9134-TN

## DESCRIPTION

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| **Source** | *E. coli*-derived<br>Thr125-Asp258, with an N-terminal Met and 6-His tag<br>Accession # O75973 |
| **N-terminal Sequence Analysis** | Met |
| **Structure / Form** | Noncovalently-linked homotrimer |
| **Predicted Molecular Mass** | 16 kDa |

## SPECIFICATIONS

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| **SDS-PAGE** | 13 kDa, reducing conditions |
| **Activity** | Measured by its binding ability in a functional ELISA.<br>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

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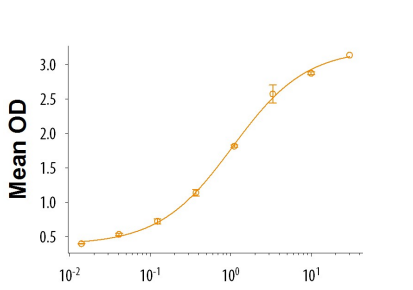
| **Reconstitution** | Reconstitute at 1 mg/mL in water. |
| **Shipping** | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. |
| **Stability & Storage** | **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 3 months, -20 to -70 °C under sterile conditions after reconstitution. |

## DATA

**Bioactivity**




When Recombinant Human C1qTNF14/C1qL1 (Catalog # 9134-TN) is coated at 1 µg/mL (100 µL/well), Recombinant Human BAI3 (Catalog # (Catalog # 9106-BA) binds with a typical $ED_{50}$ of 0.4-2.4 µg/mL.

## 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:**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