Recombinant Mouse Contactin-3

Catalog Number: 9800-CN

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived Met1-Thr1003, with a C-terminal 10-His tag Accession # AAA17403
N-terminal Sequence Analysis	Glu20
Predicted Molecular Mass	110 kDa

SPECIFICATIONS

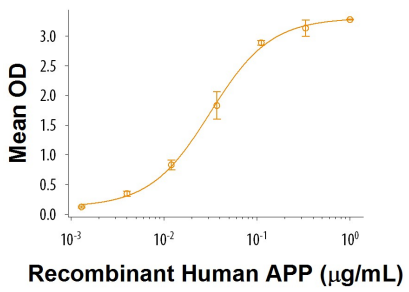
SDS-PAGE	110-157 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Mouse Contactin-3 is coated at 2 µg/mL (100 µL/well), the concentration of Recombinant Human Amyloid precursor protein (APP) Fc Chimera that produces 50% optimal binding response is 0.02-0.1 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped with polar packs. 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

Binding Activity



When Recombinant Mouse Contactin-3 (Catalog # 9800-CN) is coated onto a microplate at 2 µg/mL, Recombinant Human Amyloid Precursor Protein (APP) Chimera binds with an ED_{50} of 0.02-0.1 µg/mL

BACKGROUND

Contactin-3 (CNTN-3), also known as brain-derived immunoglobulin superfamily protein 1 (BIG-1) and plasmacytoma-associated neuronal glycoprotein (PANG), is an axon-associated cell adhesion molecule (AxCAM). CNTN-3, together with 5 additional contactin proteins, forms the TAG-1/F3 subgroup of the Ig superfamily (1-3). Mature mouse CNTN-3 is a heavily glycosylated, 983 amino acid (aa) chain containing 6 Ig C2-like domains, 4 type III fibronectin-like domains, and a GPI anchor (1, 2). Mouse CNTN-3 shares 92% and 95% aa identity with human and rat CNTN-3, respectively. CNTN-3 is abundantly expressed in the adult brain, particularly in the frontal lobe, occipital lobe, cerebellum, amygdala, and hippocampus (1, 4). In mice, CNTN-3 has been associated with sensory circuitry such as the olfactory bulb and the outer segment of the retina (5, 6). Immobilized CNTN-3 promotes neurite outgrowth from rat hippocampal neurons (4). Although the physiological function of CNTN-3 is still poorly understood, experimental evidence shows that it forms both cis- and trans-complexes with protein tyrosine phosphatase gamma (PTPRG) at the cell surface (5, 6).

References:

1. Yoshihara, Y. *et al.* (1995) J. Neurobiol. **28**:51.
2. Connelly, M.A. *et al.* (1994) Proc. Natl. Acad. Sci. **91**:1337.
3. Shimoda, Y. and K. Watanabe (2009) Cell Adhesion Migration **3**:64.
4. Kamei, Y. *et al.* (2000) Genomics **69**:113.
5. Bouyain, S. and Watkins, D. (2009) PNAS **107**:2443.
6. Nikolaienko, R. *et al.* (2016) J. Biol. Chem. **291**:21335.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449