

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived human MEGF9 protein
Ala36-Asn514, with a C-terminal 6-His tag
Accession # Q9H1U4.3

N-terminal Sequence Analysis Ala36

Predicted Molecular Mass 51 kDa

SPECIFICATIONS

SDS-PAGE 136-150 kDa, under reducing conditions

Activity Measured by its ability to inhibit neurite outgrowth of E16-E18 rat embryonic cortical neurons.
Recombinant Human MEGF9 His-tag, immobilized at 0.15 µg/mL on a 96 well plate, is able to significantly inhibit neurite outgrowth.

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

Purity >95%, 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 1 mg/mL in PBS.

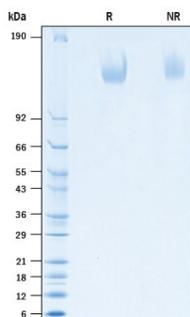
Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

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

SDS-PAGE



2 µg/lane of Recombinant Human MEGF9 His-tag (Catalog # 10514-ME) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 136-150 kDa.

BACKGROUND

MEGF9 (Multiple EGF-like domains protein 9; also EGF-like protein 5) is a novel transmembrane glycoprotein with multiple EGF-like repeats. It is predominantly expressed in the developing and adult central nervous system and peripheral nervous system. Immunohistochemical studies showed that MEGF9 is expressed in Purkinje cells of the cerebellum and in glial cells of the peripheral nervous system. In non-neuronal tissues, MEGF9 is expressed in epidermal layer of skin, papillae of the tongue and epithelium of the gastrointestinal tract. MEGF9 is suggested to participate in cell motility, and its absence correlates with tumor cell migration. Mature human MEGF9 is 572 amino acids (aa) in length. It is a single span type I transmembrane protein that contains a 484 aa extracellular domain (ECD). The extracellular region possesses a lengthy Pro-rich region (aa 55-200). N-terminal region of MEGF9 includes several potential O-glycosylation sites followed by five EGF-like domains which are highly homologous to the short arms of laminins. Following one single pass transmembrane domain, a highly conserved short intracellular domain with potential phosphorylation sites is present (1, 2). Within the ECD, human MEGF9 shares 75% aa sequence identity with mouse and rat MEGF9.

References:

1. Brandt-Bohne, U. *et al.* (2007) *Biochem. J.* **401**:447.
2. Heller, B. *et al.* (2014) *J. Cell. Biol.* **204**:1219.