

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived mouse MEGF9 protein Gly35-Asn512, with a C-terminal 6-His tag Accession # Q8BH27.1
N-terminal Sequence Analysis	Gly35
Predicted Molecular Mass	51 kDa

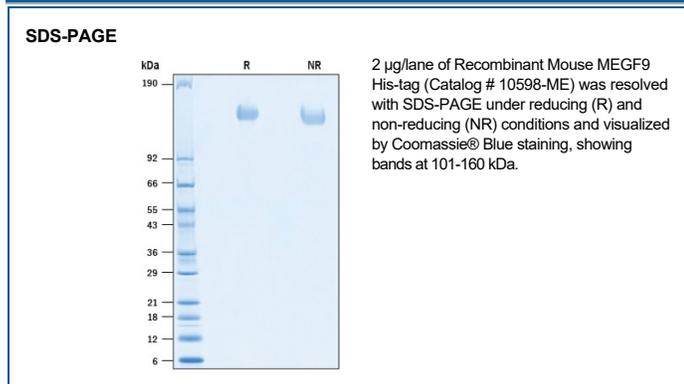
SPECIFICATIONS

SDS-PAGE	101-160 kDa, under reducing conditions
Activity	Measured by its ability to inhibit neurite outgrowth of E16-E18 rat embryonic cortical neurons. Recombinant Mouse 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. <ul style="list-style-type: none"> • 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

MEGF9 (Multiple EGF-like domains protein 9; also EGF-like protein 5) is a transmembrane glycoprotein with multiple EGF-like repeats (1). 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 (1). Mature mouse MEGF9 is 566 amino acids (aa) in length. It is a single span type I transmembrane protein that contains a 478 aa extracellular domain (ECD) that possesses a lengthy Pro-rich region. 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, mouse MEGF9 shares 75% and 92% aa sequence identity with mouse and rat MEGF9, respectively.

References:

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