Recombinant Mouse SIGNR7/CD209g

Catalog Number: 5198-SR

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived Arg71-Tyr255 with an N-terminal 6-His tag Accession # CAL15171
N-terminal Sequence Analysis	6 His-Arg71
Predicted Molecular Mass	21.9 kDa

SPECIFICATIONS

SDS-PAGE	29-30 kDa reducing conditions
Activity	Measured by the ability of the immobilized protein to support the adhesion of LS180 human colorectal adenocarcinoma cells. When 5 x 10^4 cells/well are added to rmSIGN-R7 coated plates (5 µg/mL, 100 µL/well), approximately 70%-90% will adhere after 1 hour at 37° C. Optimal dilutions should be determined by each laboratory for each application.
Endotoxin Level	<0.01 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 200 µg/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.

BACKGROUND

SIGNR7 (dendritic cell-specific ICAM-3 grabbing nonintegrin related gene 7), also known as CD209g, belongs to the family of C-type lectins that participate in innate immune responses by binding and clearing pathogens. SIGNR7 is one of several mouse proteins which are encoded by separate genes and exhibit structural and sequence homology to human DC-SIGN and DC-SIGNR (1 - 3). Mouse SIGNR7 is a type 2 membrane protein that consists of a 45 amino acid (aa) cytoplasmic domain, a 22 aa transmembrane segment, and a 188 aa extracellular domain with a juxtamembrane neck region and a single carbohydrate recognition domain (CRD). Within the CRD, mouse SIGNR7 shares 44% - 49% aa sequence identity with mouse SIGNR1, 2, 3, 4, and 5 and 81% with SIGNR8. It shares 44% - 54% aa sequence identity with the CRD of bovine SIGNR7, human DC-SIGN, human DC-SIGNR, and rat DC-SIGN. A SIGNR7 ortholog has been described in cow but not in human (4). SIGNR7 binds both fucose and mannose residues and shows a distinct binding preference for the 6'-sulfo-sialyl Lewis× carbohydrate (5). Its interaction with mannosylated BSA is disrupted at low pH (5).

References:

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Europe | Middle East | Africa TEL +44 (0)1235 529449