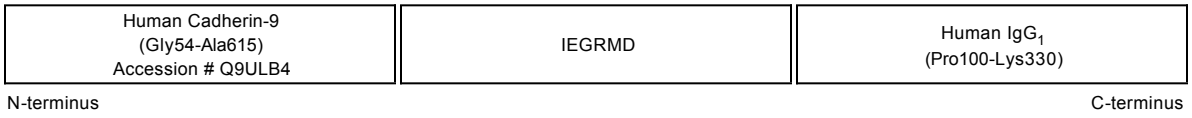
Recombinant Human Cadherin-9 Fc Chimera

Catalog Number: 9984-CA

DESCRIPTION

Source

Human embryonic kidney cell, HEK293-derived human Cadherin-9 protein



N-terminal Sequence Analysis	Gly54
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	89.1 kDa

SPECIFICATIONS

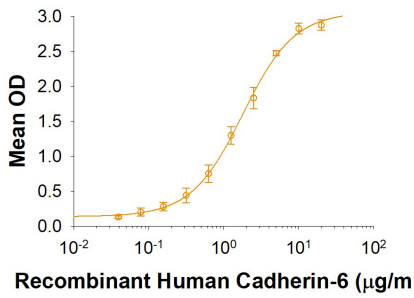
SDS-PAGE	92-106 kDa, under reducing conditions
Activity	Measured by its binding ability in a functional ELISA. When Recombinant Human Cadherin-9 Fc Chimera is immobilized at 1 µg/mL, 100 µL/well, Recombinant Human Cadherin-6/KCAD Fc Chimera (Catalog # 2715-CA) binds with an ED_{50} of 0.6-3.6 µg/mL.
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 250 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	• 12 months from date of receipt, ≤ -20 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, ≤ -20 °C under sterile conditions after reconstitution.

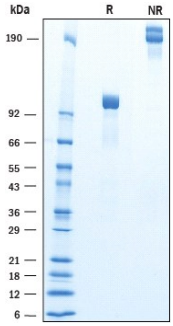
DATA

Binding Activity



When Recombinant Human Cadherin 9 Fc Chimera is immobilized at 1 µg/mL, 100 µL/well, Recombinant Human Cadherin-6/KCAD Fc Chimera (Catalog # 2715-CA) binds with an ED_{50} of 0.6-3.6 µg/mL.

SDS-PAGE



2 µg/lane of Recombinant Human Cadherin-9 was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 92-106 kDa and 180-210 kDa, respectively.

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Recombinant Human Cadherin-9 Fc Chimera

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BACKGROUND

Cadherin-9 (CDH9) is a member of the larger Cadherin superfamily of cell surface glycoproteins originally identified as proteins mediating cell-cell adhesion (1). In humans, there are more than 100 cadherin members divided into distinct families and numerous sub-families (1-3). Cadherins share a general structural architecture with an extracellular domain (ECD) containing 2 or more extracellular $Ca2^+$ binding cadherin repeat (EC) domains, a single-pass transmembrane section, and a short cytoplasmic tail (1-3). Cadherins function by forming homophilic binding interactions through these EC domains to generate both *trans* and *cis* dimers (1-3). Human CDH9 is categorized as a classical cadherin, containing 5 EC domains, and the ECD shares 94% amino acid sequence identity with the ECD of both mouse and rat CDH9, respectively. Cadherins are found in diverse cell types and have been implicated as essential for the morphogenesis and homeostasis of multiple tissues and organs (1-3). Human CDH9 functions primarily in the central nervous system and is expressed in DG and CA3 neurons. Loss of CDH9 expression leads to defects in synapse formation and differentiation of specific neural circuits. (4). Additionally, disruption to CDH9 and CDH10 genes has been linked to autism spectrum disorders (5, 6). CDH9 expression has been identified in human kidney, and it has been used as a cell surface marker for fibroblasts (7). Recently, CDH9 has been reported as a potential suppressor of cancer metastasis (8).

References:

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